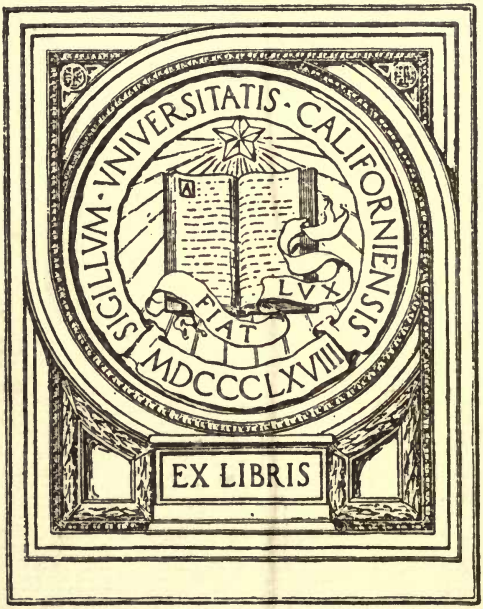
IN MEMORIAM
BERNARD MOSES



Ornamental and Domestic Poultry.

UNIV. OF
CALIFORNIA

GALLUS FURCATUS. GALLUS SONNERATII AND FEMALE. GALLUS BANKIVA AND FEMALE.

WILD FOWLS OF THE EAST INDIES.

A TREATISE

ON THE

HISTORY AND MANAGEMENT

OF

Ornamental and Domestic Poultry.

By Rev. EDMUND SAUL DIXON, A.M.

RECTOR OF INTWOOD-WITH-KESWICK, NORFOLK.

WITH LARGE ADDITIONS,

By J. J. KERR, M.D.

ILLUSTRATED WITH SIXTY-FIVE ORIGINAL PORTRAITS, ENGRAVED EXPRESSLY FOR THIS WORK.

FOURTH EDITION, REVISED.

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several kinds of Shanghaes,* Guelderland, and other varieties, not therein specifically noticed. In addition to this, there were wanting some remarks on the history and method of making Capons, a practice which Mr. Dixon seems, without sufficient reasons, inclined to condemn. There have been omitted, also, certain portions, not deemed necessary or interesting to the American Fancier.

In order that the reader may know how deeply Mr. Dixon is interested in the prosecution of this and kindred branches of Natural History, and how far his views and statements may consequently be relied on, I take the liberty of extracting the following from a letter I received from him twelve months ago. He says, "I beg to thank you very sincerely for your friendly offers of assistance, and shall not hesitate to avail myself of them. . . . . As soon as the second edition of my book is finished, which will be much enlarged, [*the second is the one used in preparing this,*] I propose setting about a second volume on Domesticated and Captive Birds, to comprise the Fancy Pigeons, Guans, Curassows, Gold and Silver

* The Editor is quite confident that the Fowl described in English Treatises on Poultry, as the Cochin China, is, when pure, identical with our thorough-bred Shanghaes.—He avails himself of this occasion to say, that though, in the main, he accords with the views and statements of his kind and valued correspondents, herein recorded, yet he would not be understood as agreeing with them in every particular.

Pheasants, etc., respecting which, any particulars of their condition and cultivation in the New World may be useful to me. I am daily expecting to receive from a nobleman, a present of Passenger, Senegal, and other Pigeons, to observe their habits in confinement. . . . . We have here Fowls nearly, if not quite answering to all those you describe. At the great Birmingham Show, last December, (1849,) at which I had the honour to act as one of the judges, there were several such. I presume that you have good Cattle and Poultry Shows in the United States."

Mr. Dixon is, from local circumstances, a man of more leisure than the Established Clergy usually are; and his position, taste, and learning, afford him every means of cultivating those branches of Natural History to which his inclination has led him. We have, therefore, in the present treatise, so far as *he* is concerned, all that can be expected, on such a subject, from a man of learning, taste, and experience. As for myself, I have little to say, farther than that mine has been a congenial and pleasing task; the subject is one to which, from early association and inclination, my attention has been long directed. I have had my boyish experiments, and the more mature trials of my manhood, on many of the systems which I have since seen detailed in the writings of the learned; and it is to the result of what I have found best in each of these, that I, in

the following pages, would wish to direct the attention of those who now have, or desire to have a Poultry-house. I have consulted with many eminent and experienced individuals on the subject, and have freely added to the work whatever I thought adapted to render it more valuable as a practical guide in the selection, breeding, and management of Domestic and Ornamental Poultry.

Of those to whom I am chiefly indebted, I would gratefully mention Mr. Nolan, of Dublin; Dr. Bennett, of Plymouth; Mr. Brown, of New York; David Taggart, Esq., of Northumberland, Pa.; Geo. P. Burnham, Esq., Dr. E. Wight, H. L. Devereux, Esq., and Mr. Morse, of Boston; Mr. Blake, of Mass.; and Mr. E. R. Cope, of Philadelphia.

The portraits were drawn, chiefly from nature, and, for the most part, under my own supervision, by Mr. Croome, of Philadelphia, whose excellence as an artist, is too well known to require a word of commendation.

J. J. KERR.

Philadelphia, February 18th, 1851.

☞ The Editor avails himself of this opportunity to inform his friends and correspondents, that on and after the first day of March ensuing, he will make the city of New York his residence, where he hopes often to hear from them, and especially from those who take pleasure in the cultivation and observation of "Ornamental and Domestic Poultry."

MR. DIXON'S PREFACE

TO THE FIRST EDITION.

(CONDENSED.)

THE history of the present volume is very simple, and, it may be, runs parallel with that of many other works on higher subjects. The author, with his wife (now removed from worldly trouble) and his child, were living in a small suburban house, that had a little back-garden attached to it. As a harmless amusement, they procured a few Fowls to keep, although totally ignorant of their ways and doings. In aid of this ignorance, books were procured—to little purpose. The difficulty of obtaining instruction from others led to closer observation on our own part, and a more eager grasp at the required knowledge. By degrees, a few water-fowl were added to the collection; but the only watering-places on the spot were tubs and milk-pans. A neighbour, however, obligingly permitted the flock of strange Fowl to be driven to a small pond a few score yards off. They throve and duly increased; but still, little help was to be had from books. Encyclopædias, though in them the Natural History department is almost always well executed, were little satisfactory. "Anser, see Goose," "Goose, see Anser," is scarcely an exaggeration of what often fell out. Several current Poultry-books were pur-

chased, which proved to be compilations of matter, valuable, indeed, in the hands of an editor practically acquainted with his subject; but these works are full of errors, grossly evident even to learners, and of contradictions that must strike any attentive reader, even though he had never seen a feathered creature in his life.

But a student is sometimes the best teacher of any branch of knowledge, as far as he has himself advanced in it, because he has a fresh recollection of the questions which gave him the most trouble to solve; and therefore notes were made, mentally, and on paper, from time to time. It was afterwards encouragingly suggested that the publication of them might be ventured upon, as being possibly acceptable to people requiring such information. They were offered to the editor of the *Gardener's Chronicle*, readily accepted, favourably received by the readers of that valuable paper—a class of persons whose good opinion I must think it an honour to have obtained—and the reader now holds in his hands the entire results of my present experience in that department of Natural History, in addition to what has been already published in the *Agricultural Gazette*. It is hoped that the need of some attempt of the kind, from some quarter, will conciliate a lenient criticism of the many errors and deficiencies with which the author may doubtless be chargeable, whatever pains he may have taken to guard against them.

Poultry has been too much undervalued as a means of study and a field of observation. Insignificant, and, to us, valueless wild animals, brought from a distance, about whose history and habits we can learn little or nothing, are received with respectful attention by men of education and ability, are embalmed in spirits, treasured

in museums, and portrayed by artists; but a class of creatures inferior to few on the face of the earth in beauty—useful, companionable, of great value in an economical point of view—are disregarded and disdained. It is possible that any one claiming to be considered as an educated gentleman, may be thought to have done a bold thing in publishing a book on Poultry, and giving his real name on the title page. Moubray, who has written, perhaps, the best modern treatise on the subject, only ventured to meet the public criticism under the shelter of an assumed title.

But some very important speculations respecting organic life, and the history of the animated races now inhabiting this planet, are closely connected with the creatures we retain in domestication, and can scarcely be studied so well in any other field. Poultry, living under our very roof, and, by the rapid succession of their generations, affording a sufficient number of instances for even the short life of man to give time to take some cognisance of their progressive succession,—poultry afford the best possible subjects for observing the transmission or interruption of hereditary forms and instincts.

I shall, no doubt, at the first glance, be pronounced rash, as soon as I am perceived to quit the plain task of observing, for the more adventurous one of speculating upon what I have observed. I can only say that the conclusion to which I have arrived respecting what is called the "*origin*" of our domestic races, has been, to my own mind, irresistible, having begun the investigation with a bias towards what I must call the *wild theory*, although so fashionable of late, that our tame breeds or varieties are the result of cross-breeding between undomesticated animals, fertile *inter se*. It will be found, I

imagine, on strict inquiry, that the most careful breeding will only fix and make prominent certain peculiar features, or points, that are observed in certain families of the same aboriginal species, or sub-species—no more: and that the whole world might be challenged to bring evidence (such as would be admitted in an English court of justice) that *any permanent intermediate variety of bird or animal, that would continue to reproduce offspring like itself, and not reverting to either original type, have been originated by the crossing of any two wild species.* Very numerous instances of the failure of such experimental attempts might be adduced. The difficulty under which science labours in pursuing this inquiry, is much increased by the mystery in which almost all breeders have involved their proceedings, even if they have not purposely misled those who have endeavoured to trace the means employed.

As to the great question of the Immutability of Species, so closely allied to the investigation of the different varieties of poultry, as far as my own limited researches have gone—and they have been confined almost entirely to birds under the influence of man—they have led me to the conclusion that even sub-species and varieties are much more permanent, independent, and ancient, than is currently believed at the present day. This result has been to me unavoidable, as well as unexpected; for, as above mentioned, I started with a great idea of the powerful transmuting influence of time, changed climate, and increased food. My present conviction is, that the diversities which we see in even the most nearly allied species of birds, are not produced by any such influences, nor by hybridisation; but that each distinct species, however nearly resembling any other, has been pro

duced by a Creative Power. I am even disposed to adopt this view towards many forms that are usually considered as mere varieties. Half of the mongrels that one sees are only transition-forms, passing back to the type of one or other original progenitor. At least, my own eye can detect such to be frequently the apparent fact in the case of Domestic Fowls.

The reader will perceive that a description has been given, in most cases, of the newly-hatched chicks of each species of poultry. The idea of doing this was suggested by an inquiry, which had for its object to ascertain the amount of differences in the very young of our supposed domestic races, compared with the difference of the mature animals, in relation to the general belief that, in youth, species differ very little from each other; it being really the fact, that the embryos of even distinct orders are closely and fundamentally alike each other. But if these embryotic similarities between birds and any other class of creatures be sought for, the time of the exclusion of the chick from the egg is far too late in its existence to look for them. Observant persons, who have themselves been practically engaged in the rearing of poultry, will immediately recognise the newly-hatched chick of each variety with which they are acquainted. Nay, when an egg has been accidentally broken, after a fortnight's incubation, I have myself been able to decide of what breed it would have been, had it survived. I believe that a comparison of the newly-hatched young of all wild birds, would lead to the like result. The only chance of finding any such analogies, or rather confusion, would be obtained by examining the embryos of birds, reptiles, and fishes, two or three days after the hatching of the ovum had commenced.

But the reader has listened long enough to this præludium; we will strike the final chords, which sound harmoniously to our own ears. Thanks are the burden of our closing song. Without great help, this volume, though small, could not have been written at all; without great encouragement the writer would certainly not have ventured to send it forth. It is scarcely possible to mention by name all the persons to whom he is indebted for hints, and answers to inquiries. The addition of initials to many paragraphs is an attempt to avoid some part of the reproach of strutting in borrowed plumes; they will also perhaps serve as props to sustain his own otherwise tottering edifice: but it would be an ungrateful omission not to mention specially the obligations under which the author feels himself bound to the Editors of *The Gardeners' Chronicle*, and the *Agricultural Gazette*.

Cringleford Hall, Norwich,
October, 1848.

MR. DIXON'S PREFACE

TO THE SECOND EDITION.

(CONDENSED.)

THE Prefaces to the First and Second edition of any book are written under very different feelings and circumstances. In the one case, an author is on the eve of submitting his labours to the tribunal of criticism, not always good-natured or impartial; in the other, he has passed the ordeal, surviving the several cuts and burns that may have been inflicted upon him; that best censor of the press, the British Public, has stamped the approving *Imprimatur* upon his fly-leaf; he may then be allowed to rejoice and congratulate himself, if he do but cherish, as he ought, due gratitude to those who held out a helping hand while the success of his venture was yet uncertain; for he may at length calculate upon the votes of those who wait to hear what opinion others shall pronounce, as well as of those who have the courage and intelligence to think for themselves.

Exclusive of the fact that a large impression has already been disposed of, this edition, it may be hoped, will meet with a favourable reception from having been carefully revised throughout, and enlarged with additional matter to the full extent that the space allowed by the publisher would permit. The opportunity of attending the great Birmingham Show of cattle, sheep, swine, and poultry, at which the author had the honour

to be selected to act as one of the judges, enabled him to make a careful inspection and comparison of those breeds of fowls whose nomenclature and arrangement were most confused; and by the kind and able assistance, both previously and since, rendered by the gentlemen connected with the management of that important meeting, it may be said, without vain boasting, that a fuller account is given of the Domestic Fowl, as at present kept in England, than is to be found in any other treatise on poultry.

CRINGLEFORD,
February, 1851.

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Ornamental and Domestic Poultry.

CHAPTER I.

THE DOMESTIC FOWL.

PRELIMINARY to a description of the different breeds and varieties of fowls, some general account of them, and their management, will be appropriate; and I know of nothing better than the following, which I quote from Mr. Dixon. He says, in answer to the question, What is the earliest date of poultry keeping? Nobody knows. My own belief is, that it is coeval with the keeping of sheep by Abel, and the tilling of the ground by Cain—a supposition which cannot be far from probability if there is any foundation for the legend that Gomer, the eldest son of Japhet, took a surname from the Cock. Indeed, it would be to him that Western Europe stands indebted for a stock of Fowls from the Ark itself. For, it is supposed by the erudite, and shown by at least probable arguments, that the descendants of Gomer settled in the northern parts of Asia Minor, and then spread into the Cimmerian Bosphorus and the adjacent regions, and that from them the numerous tribes of the Gauls, Germans, Celts, and Cimbrians descended. It is true that there is no mention of Fowls by name in the Old

Testament, except a doubtful allusion in the Vulgate translation of the book of Proverbs (xxx. 31), which is lost in the authorized version; the Hebrew word translated "gallus" in one place being rendered "greyhound" in the other: "Gallus succinctus lumbos; et aries: nec est rex, qui resistat ei:" "a greyhound;" (some think the *war-horse* was meant), "an he-goat also; and a king, against whom there is no rising up." It will be seen that the Latin and the English by no means run parallel to each other. There is another equally disputable passage in Ecclesiastes xii. 4: "And the doors shall be shut in the streets, when the sound of the grinding is low, and he shall rise up at the voice of the bird (*i. e.* at Cock-crowing), and all the daughters of music shall be brought low." Both passages are quoted by the Rev. Mr. Pegg in his curious paper on Cock-fighting, in the Archæologia, vol. iii. A still less certain reference occurs in the book of Job, xxxviii. 36: "Who hath put wisdom in the inward parts? or, who hath given understanding to the heart?" running thus in the Latin: "Quis posuit in visceribus sapientiam, vel quis dedit gallo intelligentiam?" which is commented on by St. Gregory, and the word "gallus" spiritually interpreted as having reference to those earnest preachers who rouse men from the slumber of sin, and cry aloud that the night is far spent, the day is at hand.

In our English version, "fowls" as articles of provision are mentioned at 1 Kings, iv. 23, and again at Nehemiah, v. 18. Unfortunately, even Hebrew scholars often find a difficulty in fixing upon the animals intended by certain Hebrew words. On referring to the Septuagint translation of the Old Testament into Greek, I find that, in the passage in Kings, the words rendered in our version "fatted fowl" are literally "*birds*, select fatted ones from the select." But in Nehemiah, instead of the "fowls" of our translation, the Septuagint reads, "a goat." So that, though we do not doubt that Cocks and Hens were domesticated in those early ages, and before them, still the

special mention of them by name in the Old Testament may be considered as doubtful. It is curious that several creatures with which we may believe that the ancient Egyptians must have been acquainted, are quite omitted from their paintings and sculptures. Thus, there seems to be no representation of Pigeons or of Camels in their tombs or temples: whereas other things, which we should have less expected to find, as a flock of *Domestic* Geese, are depicted with great accuracy. I have been anxious to find portraits of some of the *Fancy* Pigeons upon ancient monuments, but cannot, though I have found mention of several in ancient literature.

The apparent omission of the name of the Domestic Fowl from the Old Testament may possibly have arisen from this cause, namely: that tending them would be the occupation of women, whose domestic employments are less prominently brought forward by Oriental writers than the active enterprises of men; and also, that the birds specially named there are the unclean birds, which are to be avoided, whereas those which may be eaten are classed in a lump as "clean." See Leviticus, xi. 13, and Deuteronomy, xiv. 11. "Of all clean birds ye shall eat. But these are they which ye shall not eat; the eagle, and the ossifrage, and the osprey," &c. Turtle-doves and young pigeons are only mentioned as objects of sacrifice, not as articles of food.

Aristotle, who wrote about 350 years before Christ, speaks of them as familiarly as a natural historian of the present day would. It is unnecessary more than to allude to the beautiful comparisons taken from them in the New Testament. The Roman authors of the commencement of the Christian era recorded that they were classed into such a number of distinct varieties as could only have been the result of long cultivation. Whether we suppose that different breeds were collected and imported from different native stations, or assume that the differences of those breeds were the artificial result of domestica-

tion,—whichever case we take, Domestic Fowls must have been held in familiar esteem for many, many ages before we have any clear record of them. Either supposition attaches to them a highly interesting and quite mysterious degree of antiquity. Even in our own country they appear to have existed at a time and in a state of society when we should least have expected to find them. "The inland parts of Britain are inhabited by those whom fame reports to be natives of the soil. They think it unlawful to feed upon hares, *pullets*, or geese; yet they breed them up for their diversion and pleasure." *Cæsar de Bello Gallico*, lib. v. cap. xii., *Duncan's Translation.*

Dr. Kidd, in his Bridgewater Treatise, doubts whether the Camel ever existed in a wild and independent state. We do not go quite so far as that in scepticism in the case of Fowls, but still believe that those who, at this epoch, hunt for Cocks and Hens of the same species as our tame ones, either on the Continent of Asia, or throughout the whole inhabited vast Indian Archipelago, will have undertaken but a fruitless search. For certain writers have been at great pains for some years past, with but little success, except in their own conceit, to pitch upon the wild origin of our Domestic Fowls. The first decided attempts appear to have been made by Sonnerat, and to have been followed up by succeeding French writers, whose errors are glaring, and in whose praise little can be said. Réaumer, whose writings are really philosophical and valuable, devoted his inquiries to more practical objects, but Sonnerat was merely a blind leader of the blind, if there is justice in the criticism of Mr. Swainson, who pronounces that "Sonnerat's works (Paris, 1776 and 1778), although often cited by the French authors, are very poor; the descriptions vague, and the figures, particularly of the birds, below mediocrity." Buffon, who did not die till 1788, had therefore an opportunity of adopting Sonnerat's Jungle Fowl as the parent of Cocks and Hens, and his vivid imagination made him very likely to have

adopted so apparently clear an account, ready telegraphed for his reception. But instead of that, he speaks hesitatingly and doubtfully of the derivation of our Domestic Fowls from Wild Cocks, and seems to despair of indicating their origin. He says, "Amidst the immense number of different breeds of the gallinaceous tribe, how shall we determine the original stock? So many circumstances have operated, so many accidents have concurred: the attention, and even the whim of man have so much multiplied the varieties, that it appears extremely difficult to trace them to their source."

Those authors who, by a pleasant legerdemain, so easily transform one of the wild Indian *Galli* into a Barndoor Fowl—who put the Jungle Cock, the Bankiva Cock, or the Gigantic St. Jago (?)* bird under a bushel, hocus pocus a little, lift up the cover, and then exhibit a veritable Chanticleer—write as if they had only to catch a wild-bird in the woods, turn it into a courtyard for a week or two, and make it straightway become

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* St. Jago, one of the Cape de Verd islands, may furnish wild Guinea Fowl, but scarcely wild Cocks. The "Gallus Giganteus," the great "St. Jago Fowl," is the offspring of an absurd misquotation from Marsden, which has run the round of most compilations. *Jago*, the native Sumatran or Malay word for a particular breed, has been mistaken for "St. Jago," the name for an island. Marsden was well acquainted with his subject, and there is nothing like referring to an original authority.

"There are in Sumatra the domestic Hen (*ayam*), some with black bones, and some of the sort we call Freezeland or Negro Fowls; Hen of the woods (*ayam baroogo*); the *jago* breed of fowls, which abound in the southern end of Sumatra, and western of Java, are remarkably large; I have seen a Cock peck off a common dining table: when fatigued, they sit down on the first joint of the leg, and are then taller than the common fowls. It is strange if the same country, Bantam, produces likewise the diminutive breed that goes by that name."—*Marsden's History of Sumatra*, p. 98.

as tame as a spaniel.* On such a notion comment is now supererogatory. For a difficulty which speaks volumes, is, that those birds which have been pointed out as the most probable ancestors of the Domestic Fowl, do not appear to be more tameable than the Partridge or the Golden Pheasant; moreover, so remarkable an appendage as the horny expansion of the feather-stem, as seen in Sonnerat's Cock, would, according to what is generally supposed to take place, be increased rather than diminished and obliterated by domestication; and even if got rid of by any course of breeding for a few generations, would be sure, ultimately, to reappear. Now, in some races of Fowls known only to the moderns, or at least not recorded, we observe feathered crests showing an affinity with the Lophophori, the Pea Fowl, and perhaps distantly with the Curassows; in others, certain Bantams, for instance, we find the feet and legs covered with feathers, indicating some approach to Ptarmigan and Grouse; the Silky Fowl has a plumage akin to that of the Apteryx and the Cassowary; but in none do we see any thing like the bony plates in the plumage of Sonnerat's Cock. A bird with this peculiarity, either in the hackle, or in the wing, after the fashion of the Bohemian Chatterer, would be the greatest curiosity that a London dealer could produce.

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* The Mute Swan is thus made to be descended from the Hooper. "It has always had more attention paid it than its fellow subjects; it has never been kept captive (?); it has been destined to adorn the pieces of water in our gardens, and there permitted to enjoy all the sweets of liberty. The abundance and the choice of food have augmented the bulk of the Tame Swan; but its form has lost none of its elegance; it has preserved the same graces and the same freedom in all its motions; its majestic port is ever admired: *I doubt even whether all these qualities are found to equal extent in the wild bird.*" *M. Baillon, quoted by Buffon.* Just so we may manufacture Donkeys from Wild Asses, Pigs from Peccaries, Dunghill Cocks from Jungle Fowl, nay, why not Men from Monkeys? See the "Vestiges of Creation."

Still, our own Cocks and Hens must have had some progenitors, and if I may venture to offer an opinion, it is this; that the *wild* race, that which once ranged the primæval woods and jungles, unsubdued by man, is now extinct, forever gone, with the Dodos and the Deinornithes. Such an idea quite agrees with what we now see going on in the world. At no very distantly future time, the Turkey will be in exactly the same position in which I am supposing our Cocks and Hens to be now placed. The race will continue to survive, only from having submitted itself to the dominion of man. Wild Turkeys are becoming every year more and more scarce in America, and as population increases, and penetrates deeper into the wilds, till the whole face of the country is overspread, occupied, and cultivated, the Turkey in the New World must share the fate of the Bustard in England, and where shall we find *it* then, except under the same circumstances as we now see our Domestic Fowls?

How long existing literature will endure it is impossible to speculate; but should it be swept clean away by any social convulsion, our descendants, two thousand years hence, will have as much difficulty in determining the origin of the Turkey, as we have in deciding upon that of the Cocks and Hens. At a later point of time than that predestined for the disappearance of the wild Turkey, but one equally inevitable, the last surviving specimens of the Emeu and the Kangaroo will be such as shall be reared in captivity, for the gratification of the wealthy or the scientific. Man has the power of trampling underfoot, and sweeping every living thing before him in his progress; but in some cases, at least, he is likely, for his own sake, to rescue the most valuable part of the spoil from destruction, if it will only submit to be rescued, and not refuse to accept a continued existence on such conditions. A family of savages would soon consume and destroy a whole province full of wild Cocks and Hens, were it ever so well stocked; but

civilized Man can see his interest in their preservation, and it is lucky for Fowls that their destiny threw them in contact with the Caucasian race instead of Australian aborigines. But the increase of knowledge and humanity may even yet do something to extend a merciful and forbearing conduct towards existing animals. Had the Dodo survived to these days, it might perhaps date a renewed term of existence from the day that it was subjected to confinement in a menagerie. Now the utter destruction of the Dodo appears, if we think of it, to have occasioned a great loss to mankind: it might have proved a valuable addition to our live stock. It was a gallinaceous, or rather a columbine bird, covered with fine down. That its flesh was good is proved by the fact of the whole race having been eaten and consumed in so short a time, though there do seem to have been two opinions, some preferring Turtle-dove to Dodo. Its weight (fifty pounds) made it of importance; its unwieldiness and inability to fly (being an *avis* not a *volucris*) made it easy to confine. It was said to lay numerous eggs: but if it produced only two or three young in the year, it was at least as prolific as the Sheep. We do not find it stated what was the food of the Dodo. Its strong scratching feet, powerful digestion, thick neck, and enormous beak, seem to indicate that roots might be its main sustenance. Let us hope that the beautiful Honduras Turkey will not be permitted to be extirpated in like manner.

The size, inactivity, and sluggishness of such creatures as these are the main cause of the extinction they are undergoing as wild races; but the common Hen has one peculiar habit, which would alone insure the destruction of her progeny in an unprotected state, in spite of all her fruitfulness and her great maternal virtues. Her delight at having laid an egg, expressed by loud cackling, which is joined in by all her companions that are at hand, would, by itself, be sufficient to prevent much increase of her young. The Latin writers called the cry *sin-*

gultus, or sobbing, as if she had suffered pain; the notice thus given of her delivery was equally public at that distance of time as now. How the squaws and their picaninnies would chuckle to have wild birds abounding around them, that not only produced an excellent egg every day, but told them where to find it! But without going into the wilderness, either east or west, what would become of the larger ground-nesting birds in England, the Water-hen, the Wild-duck (what has become of the Bustard?), if they were not as silent and stealthy in depositing their eggs, and leading forth their young, as the Hen is noisy and obtrusive? Even Le Vaillant's ape "Kees" could learn to listen for the cacklings of his master's Hens, and steal their eggs.

The habit which so large a bird as the Fowl has of retiring to roost by daylight, and composing itself to repose before it is hidden and protected by the shades of night, would also be a certain source of danger in a wild state. The craving hunter who wanted a meal, need not fatigue himself by a search during the noontide heats. He would have but to bear the pangs of appetite till evening approached, and then stealing with no great caution under the outstretched branches, he would find a ready prey distinctly apparent between himself and the ruddy glare of sunset. No wild race could survive a few years of such facile, such tempting capture. Those who would reply by saying that when Cocks and Hens were wild they had not fallen into the imprudent fashion of roosting before dark, and cackling when they dropped an egg, beg the question which we are not disposed to grant them unless they can positively establish their claim.

The antiquity which I thus assume for our existing race of Cocks and Hens may perhaps startle some readers; but hear Professor Owen on other analogous cases: "It is probable that the Horse and the Ass are descendants of a species of pliocene antiquity in Europe. There is no anatomical character

by which the present Wild Boar can be distinguished specifically from that which was contemporary with the Mammoth. All the species of European pliocene *Bovidæ* came down to the historical period, and the Aurochs and Musk-ox still exist; but the one owes its preservation to special imperial protection, and the other has been driven, like the Rein-deer, to high northern latitudes. There is evidence that the great *Bos-primigenius*, and the small *Bos-longifrons*, which date, by fossils, from the time of the Mammoth, continued to exist in this island after it became inhabited by Man. The small short-horned pliocene Ox is most probably still preserved in the mountain varieties of our domestic cattle. The great Urus seems never to have been tamed;" note this: "but to have been finally extirpated in Scotland. Of the Cervine tribe, the Red-deer and the Roe-buck still exist in the mountainous districts of the north; but, like the Aurochs in Lithuania, by grace of special protective laws."—*British Fossil Mammals and Birds*, Introduction, p. xxxii.

But if our domestic Fowls were thus early called into existence, where are their fossil remains to be found? The probabilities are against our finding them at all. We can hardly expect them in any oceanic deposit; and "extremely rare," says Professor Owen, "are the remains of birds in the fresh-water deposits, or marine drift of the newer pliocene period, which so abound in Mammalian fossils. The light bodies of birds float long on the surface after death; and for one bird that becomes imbedded in the sediment at the bottom, perhaps ninety-nine are devoured before decomposition has sufficiently advanced to allow the skeleton to sink."—*Id.* p. 557. It would probably be in their supposed original Asiatic home that any successful search would be made; but we ought not to be disappointed if none are discovered even there. Dr. Buckland, in his *Reliquiæ Diluvianæ*, mentions twenty-two localities of the remains of antediluvian animals, and in only three of them are relics of birds found.

It certainly has long been thought that our domesticated creatures, beasts as well as birds, must necessarily be descended from some wild stock, which still exists in an untamed state. This *petitio principii*, this begging of the point at issue, has unquestionably led to wrong conclusions, and left a host of naturalists, particularly œconomical writers, planted in the midst of difficulties which are still unexplained. Where is the wild origin of the sheep, or of the goat, to be found? Some say here, some say there, some fix on this species, some on that, and the reader ends by "giving it up." But take the simple theory that many of our domestic animals are the survivors of extinct races, survivors, because domesticable, of extirpated, because defenceless creatures, and the difficulties vanish, and become reconcileable with what we see around us. All those species which have of late become, or are likely soon to become extinct, disappear because they refuse to be subjugated by man; for example, the yet untamed Aurochs of Lithuania, which still survives only by virtue of strict protective laws enforced by the Emperor of Russia, and which has had all the time, from the epoch of living Mammoths to the present day, to become softened in disposition, but still refuses to hear the voice of the charmer. In some few sad instances, principally of birds, the work of extermination appears to have been completed before any fair experiment had been tried, as with the Dodo and the Kivi Kivi. Other species, on the contrary, as the Turkey, will probably long survive the utter disappearance of their wild progenitors, solely on account of having submitted with a good grace to the dominion of Man. One of these, the Cereopsis, seems likely to owe its rescue to the happy exertions of the Zoological Society, which thus becomes an ark of refuge amidst the flood of population.

The Common Cock, the *Gallus Gallinaceus* and Αλεκτωρ of the ancients would, at first sight, appear to have received one

or two remarkable changes of form subsequent to its having been saved from annihilation by becoming dependent on the care of Man, if we can believe domestication to be capable of producing such changes. The crest of feathers on the head is an extraordinary metamorphosis to have occurred from an original fleshy comb. There is no yet discovered instance, that I am aware of, of any wild crested breed. Aristotle makes such a pointed and so clear a distinction between the feathered crests of birds in general, and the combs of cocks, as to lead to a strong suspicion that he was unacquainted with Fowls with top-knots; which he could hardly have avoided seeing in the course of his unequalled opportunities for research, had they existed in his day; "certain birds have a crest; in some consisting of actual feathers; but that of Cocks alone is peculiar, being neither flesh, nor yet very different from flesh in its nature."—*Hist. Anim.*, book ii., chap. xii. towards the end.

I can find no passage in the classical authors which implies that the Cocks and Hens of their day bore a feathered top-knot. The Latin *crista* is at least an ambiguous word. If it occasionally means a plumed crest like that of the Hoopoe, it is also most pointedly used for a fleshy comb. Pliny, lib. xxvii., chap. 93, says, "The Alectorolophus (a plant), which with us is called *Crista*, has leaves like a Cock's comb." This passage may not be considered conclusive; because, although the Cockscomb is a remarkable and striking plant, he might intend to describe some other herb which bore tufts or tassels. But in describing the Phœnix (lib. x., chap. 2), he mentions that "it is adorned with wattles (using the same word that he does to express the comb) on its throat, and a feathered top-knot on its head." But further on he puts the interpretation of the word beyond all doubt. "Messalinus Cotta discovered the method of cooking the web of Geese's feet, and fricaseeing them in small dishes along with Cock's combs."—Lib. x., c. 27. Not even the Romans would think a tuft of feathers any great

delicacy; and a dish of Cock's combs is one of the few things in which modern taste coincides with theirs. The Latin *crista* must not, therefore, be translated by the English *crest* when it has reference to Cocks and Hens. *Cirrus* is the Latin word used by Pliny to denote the tuft of feathers on the head of certain Ducks (*fuligulæ*), and also properly adopted by Aldrovandi to express the top-knot of Polish Fowls. Theocritus calls the Cock Φοινικολόφον. We know something about the red combs, but nothing of the red crests of Fowls.

There is a passage in Ælian, which at first sight would appear to contradict the notion that the ancients had no top-knotted fowls, but which, in fact, strongly confirms it.

"And (in India) Cocks are produced of the greatest size, *and they have a comb which is not red like those of our fowls*, but variegated like the corolla of flowers; and they have their rump-feathers, *not curved* nor twisted into screws (as in the bird of Paradise), but broad; and they drag them after them, like Peacocks, when they do not erect them and set them up; and the colour of the feathers of the Indian Cocks is golden and cærulean, like the stone smaragdus."—Lib. xvi., c. 2. The smaragdus was the emerald; a metallic lustre is clearly indicated. That the bird in question was not the *Gallus Gallinaceus* is certain, from the absence of the sickle feathers in the tail. What it was, is not our bounden duty to decide. It is not, moreover, stated that the λόφος, though variegated, did consist of feathers. It might have been a helmet, like that of the Guinea-fowl. The earliest notice of Crested Fowls that I am aware of, occurs in Aldrovandi; one of which sorts is "our common country Hen, all white, and with a crest like that of a lark," a very useful comparison, that will serve to distinguish such-like from the Polish Fowls; the other, what he calls the Paduan, evidently a variety of the Polish or Poland

If birds with such peculiarities were unknown to the ancients, it will be asked through what agency they have made their

appearance in our days. Are they new species, the result of clever combination and nurture, or of mere chance? Not conceiving that they are any thing new under the sun, although long unknown to us, I answer at once, No. The mercantile enterprise and trading voyages of the English, Dutch, Spaniards, and Portuguese, are quite sufficient to explain their arrival, without having recourse to a new creation. It is strange that any new or remarkable breed, like Sir J. Sebright's Bantams, or the Duke of Leeds' Shackbag, should invariably first appear in the poultry-yards of the wealthy, and not in the homestead of the small farmer or the cottager. The lately introduced Cochin China Fowl, about which there is no mystery, and of which her majesty has just reason to be proud, is a case in point. But it is not strange or unlikely that gentlemen who have succeeded in obtaining some exotic variety, should choose to conceal the source and the channel by which it came into their hands, or even take credit for having themselves raised and generated a breed which excited the curiosity and admiration of their neighbours. There are several varieties that are extinct, or not to be obtained in this country, as the above-mentioned Duke of Leeds' Fowl, and the White Poland Fowl with a black top-knot.* Attempts have been made to reproduce them, both by the most promising systems of crossing, and by acting on the imagination of breeding Fowls, after the manner of Jacob's experiments with Laban's flocks; all in vain. We can easily understand how certain points in any race can be confirmed and made more conspicuous by selection and breeding in and in, but we are at a loss to know how to go to work to produce something quite original and new. If these lost varieties do reappear, and they are both worth the trouble they may give, it will probably be by a fresh importation from their original Indian home.

* I seriously doubt the existence of any such fowl.—Ed.

The head-quarters of Domestic Fowl at the present day are the islands of Java and Sumatra, and the Malay Peninsula, a vast extent of but partially explored country, seeing that the area of this last alone is very little less than that of Great Britain. But the prospects opened to natural history by Sir James Brooke's occupation of Borneo, and his gradual pacification of the enormous Oriental Archipelago by the suppression of piracy, are scarcely appreciable at this early period. According to the Quarterly Review (July, 1848), no regions of equal extent on the surface of the globe supply equally rich and varied materials for commerce, ranging from gold and gems of the costliest kind, down to the humblest necessaries of daily life. Throughout the whole twelve thousand islands, at almost every step towards the interior, we have discovered some new article of merchandise, some valuable kind of timber, some odoriferous gum, some species of root, or fruit, or grain, not yet included in the catalogue of human food, some rich mineral or vegetable dye, calculated to improve the beauty of our European fabrics; and yet we have hitherto scarcely stepped beyond the threshold of Borneo, Celebes, Palāwan, Magindanão, or New Guinea. All beyond the mere fringe of the coast is unknown; though rivers of great breadth and depth court the entrance of steamers, and promise to reveal new lands at every stroke of the paddle. Here is a Paradise for poultry fanciers; enough to make one entreat to be admitted into the Sarawāk service as an *attaché* and volunteer. What delight in tracking some secluded river, or exploring some lovely valley, to behold in the villages Cocks and Hens that would here sell for their weight in silver, if not in gold; or perhaps to stumble on unknown Pea-fowl and Pheasants, a pair of which would draw half Middlesex and Surrey to the Zoological Gardens!

The addition of a fifth toe to the foot (the *monstra per excessum* of Blumenbach) as in the Dorking variety, is more

likely than the crest to have supervened in the course of time. I do not find it mentioned by any earlier writer than Columella. The compilers of books on Poultry have stated that it is noticed by Aristotle, but I cannot hit upon the passage. In his treatise on the Parts of Animals, book iv., chap. 12, he speaks of the four toes of birds in general, noticing the peculiarities of the Ostrich and the Wryneck, but not a word about the fifth toe in Domestic Fowl, which he would scarcely have passed over had he ever observed it; particularly as other remarkable circumstances, connected with them, such as the development of the egg, &c., attracted so much of his attention. From Aristotle to Columella is an interval of about 400 years; quite time enough to render such a slight appendage permanent by hereditary transmission. The new member would probably appear only in a rudimental form at first, and become more strongly developed in the course of succeeding generations. A Cochin China Cock in my possession has the outer toe of each foot furnished with two distinct claws, which we may take to be the carliest indication of a fifth toe. His chickens inherit the same peculiarity. A correspondent (H. H.) on whom I can rely, says, "I had a Cock of the Golden Polish variety that lost two of his claws by accident, and in their place two smaller joints grew from the end of each toe, both provided with little claws. This became hereditary, for next season there were two chicks hatched, both having the aforesaid peculiarity." Analogous instances may be seen in Museums, of lizards with two tails; the original single one having been lost by accident, and two grew in its place. It is said, I know not with what truth, that a slight notch made in the stump of the decaudated reptile will insure the production of a double tail. From the time of Columella to the present day, a fifth toe has been the well-known and distinctive characteristic of a certain breed.

Next to the Dog, the Fowl has been the most constant

attendant upon Man in his migrations and his occupation of strange lands. The carnivorous diet of the Dog is one main cause of his pre-eminence. But search where you will, except in the very highest latitudes, you will find in New Zealand, Australia, the American Continents, the West Indies, and in islands innumerable, Fowls sharing in the possession and settlement obtained by Man. As we approach the Poles, difficulties arise in the way of their further companionship. In Greenland they are occasionally kept only as curiosities and rarities. And Sir Wm. Hooker tells us that Poultry of all kinds is quite unknown to the Icelanders, except that a few are now and then conveyed to the country by the Danes, who are obliged at the same time to bring with them a sufficient supply of necessary food, *i. e.* grain, for their support, of which the island furnishes none. Fowls, however, would get on very well with a fish and meat diet, with grass and vegetables, assisted by a little imported corn, were there sufficient inducement to make the inhabitants take pains about their maintenance. But a little powder and shot procures them an abundance of wild-fowl that are much more to their taste; and fresh-laid eggs would be little cared for by people, who, like the Icelanders, *prefer* those eggs of the Eider Duck which have young ones in them.

But the most mysterious, though not the most ungenial, localities in which Fowls have hitherto been found, are the islands scattered over the vast Pacific Ocean. How they got there is as great or a greater puzzle than to divine the origin of the human population. The earliest discoverers found the people to be possessed of pigs, dogs, and fowls, all domesticated for the sake of being eaten. "On the walk to Oree's house (in Huaheine), Dr. Sparrman and I (Mr. G. Forster, who accompanied the expedition as Naturalist) saw great numbers of hogs, dogs, and fowls. The last roamed about at pleasure

through the woods, and roosted on fruit-trees."—*Cook's Second Voyage*, 1772.

"Mr. Forster learned from the people the proper name of the island, which they call Tanna: . . . . The people of this island can be under no such necessity (*of* eating human flesh) for the want of other animal food; they have fine pork *and fowls*, and plenty of roots and fruits."—*Ibid.*

"The traditions of the people state that fowls have existed in the islands (Tahiti) as *long* as the people, that they came with the first colonists by whom the islands were peopled, or that they were made by Taaroa at the same time that men were made."—*Ellis's Polynesian Researches*, vol. i., p. 302.

This account would assign an unfathomable antiquity to the domestication of Fowls, confirmed by the following legend:—

"Mr. Young said, among the many traditionary accounts of the origin of the island and its inhabitants, was one, that in former times, when there was nothing but sea, an immense bird settled on the water and laid an egg, which soon bursting, produced the island of Hawaii. Shortly after this, a man and woman, with a hog and a dog, and a pair of Fowls, arrived in a canoe from the Society Islands, took up their abode in the eastern shores, and were the progenitors of the present inhabitants."—*Ellis's Missionary Tour through Hawaii.*

"The domestic Fowl was found in the Sandwich Islands by their first discoverer, and though seldom used as an article of food, is raised for the supply of shipping."—*Ibid.* p. 9.

Captain Cook remarked them on islands that had never before been visited by civilized Man, and the very wide range over which they are distributed precludes the supposition of their having been introduced by Tasman or any of the other early voyagers. "There is only one tame species of birds, properly speaking, in the tropical isles of the South Sea, viz. the common Cock and Hen: they are numerous at Easter Island, where they are the only domestic animals; they are

likewise in great plenty in the Society Isles and Friendly Isles, at which last they are of a prodigious size; they are also not uncommon at the Marquesas, Hebrides, and New Caledonia; but the low isles, and those of the temperate zone, are quite destitute of them."—*Mr. Forster's Journal of Captain Cook's Second Voyage.* The pigs have been affirmed to differ specifically from the European breeds; less has been said about the Poultry. It appears that there are different varieties in the different islands, some of very large size. Our great commercial and political intercourse with the East makes that the quarter from whence our importations of Fowls are mostly drawn, either as curious specimens, or for the sake of improving our stock; but it would certainly be interesting, and might prove useful, could we obtain a few new sorts, such as the Friendly Island breed, from the less frequented spots in the South Seas. Our Colonists and Missionaries in the Sandwich Islands and Tahiti might surely send us a few Cocks and Hens in return for the many substantial benefits they have derived from the mother country. Mr. Williams's theory, which he supports by full details and arguments, is that Polynesia was originally colonized and occupied by emigrants from the Malay peninsula and Sumatra. He says, "so convinced am I of the practicability of performing a voyage from Sumatra to Tahiti in one of the large native canoes, that, if an object of sufficient magnitude could be accomplished by it, I should feel no hesitation in undertaking the task."—*Missionary Enterprises*, p. 510. He also offers a probable hypothesis for the existence of two distinct races of Men in the South Sea Islands, both derived from the great Asiatic Islands. If his views are correct, we have some slight clue to the introduction of Fowls into the isolated recesses of the Pacific Ocean, which only makes us the more anxious to get a sight of some genuine South Sea Poultry, for the sake of comparing them with the East Indian breeds. If they be found to resemble them closely,

it will be an additional confirmation of my belief that the lapse of ages upon ages is insufficient to alter any one living creature into a new species. And should this little book ever penetrate so far into the other hemisphere, let it persuade the Sandwich Islanders to preserve by domestication, and by transmission to this country, a stock of their most interesting,* pretty, and unique little Geese, before the race is quite swept out of existence.

As to the estimation in which Domestic Fowls are justly held, it is impossible for me to proclaim their merits adequately. Every county has a "strain" which is superior to that of the other fifty-one counties. "That strain again," as the Duke said to the singing-boy. Every neighbourhood has some crack breed which is unrivalled elsewhere; every old woman, in every village, has some pet Cock or Hen which she would not part with for twice its weight in butcher's meat, and an ounce of snuff into the bargain:

> "Non, mihi si linguæ centum sint, oraque centum,
> Ferrea vox, a strong steel pen, unlimited paper,"

could I completely detail the virtues attributed to Cocks and Hens.

Here is a list of "the Physical uses of a Hen and its parts:"—

"1. *The Jelly of an old Hen*, made of a Hen cut with calves' feet, and sheep's feet, or beef, boiled six or seven hours in a close vessel, to which you may add spices, or cordial waters, is a great strengthener and nourisher.

"2. *Cock Ale* is made of *Hen's* flesh (a bit of a bull, surely), boiled till the flesh falls from the bones; then it is beaten with the bones, and strained for wine or ale with spices.—Note. *The flesh of Hens is better than that of Cocks, except*

* They resemble the *Anser albifrons* in miniature, without the white front. They are so tame and attached as to follow their keeper about the house, like dogs.

Capons. The flesh of a black Hen, that hath not laid, is accounted better and lighter.

"3. *Cock-broth* is thus made: Tire an old Cock, till he fall with weariness, then kill and pluck him, and gut him, and stuff him with proper physic, and boil him till all the flesh falls off, then strain it. This broth mollifies, and by means of the nitrous parts wherewith that decrepit animal is endued, and which are exalted by that tiring of him, cuts and cleanseth, and moves the belly, the rather if you boil therein purging medicines. It is famous for easing the pains of the Colic (boiled with purgers and discutients), good against a Cough and Tartar of the Lungs (boiled with breast herbs).

"4. *The Brain* thickens and stops fluxes, as that of the belly (taken in wine). Women anoint therewith the gums of Children to make them breed teeth.

"5. *The inward tunicle of the Stomach,* dried in the sun, and powdered, binds and strengthens the stomach, stops vomiting and fluxes, and breaks the stone.

"6. Is a virtue rivalling that of Balm of Syriacum.

"7. *The Gall* takes off spots from the skin, and is good for the eyes.

"8. *The Grease* of Hen or Capon is hot, moist, and softening, between the *Goose* and *Hogs'* grease, and obtunds acrimony, cures chapt lips, pains in the ears, and pustles in the eyes.

"9. *The Weasand* of a Cock, burnt and not consumed, given before supper, is an antidote to the influence of the herb Dandelion.

"10. *The Dung* doth all the same that the Pigeon's, but weaker; and besides, cures the Colic and pain of the Womb Moreover, it is good especially against the Jaundice, Stone, and Suppression of Urine.

"Note. *The white part of the Dung is esteemed the best.*

"Give half a drachm, Morning and Evening, for four or five days.

"Outwardly it dries running heads, and other scabs (*the ashes sprinkled on*)."—*Willughby*, book ii., p. 157.

More medicinal properties are added; so that a good Hen seems to be a perfect walking doctor's shop. Aldrovandi has filled more than sixteen large folio pages with an account of the medicinal uses of Fowls and their Eggs, both for man and beast, which we do not quote here, as they would meet with little more serious attention than the foregoing. Hens were sacrificed by the ancient pagans to Æsculapius, the God of Medicine, on account of the services they were supposed to render to the health of mankind. Fever, dysentery, melancholy, epilepsy, cough, colic, all yielded to some preparation from gallinaceous materials. Even the surgeon was superseded by their virtues. A plaister composed of white of egg and white frankincense cured broken bones; the albumen alone was a sovereign vulnerary. Oil of eggs regenerated hair more surely than Rowland's Macassar. Other preparations were remedial against poison, corns on the toes, the bites of mad dogs and vipers, and frenzy. In short, every one who had a tolerable stock of poultry, had only himself to blame if he did not repel the usual ills to which mortal flesh is subject.

It can, therefore, be no trifling amount of intrinsic excellence which has earned for them such a universal good opinion. Independent of all considerations of profitableness, they are gifted with two qualifications, which, whether in man, beast, or bird, are sure to be popular; those are, a courageous temper, and an affectionate disposition. Add to these, beauty of appearance and hardiness of constitution, and it is no wonder that each old wife thinks her own stud of Fowls invaluable. It is recorded of Catherine the Second of Russia, who was great in more senses than one, that she compelled a rival to her throne to amuse himself with tending poultry, and "other imbecilities." The story was meant to tell against her; but

worse things might be said of her, and perhaps of many other jealous tyrants.

The courage of the Cock is emblematic, his gallantry admirable, his sense of discipline and subordination most exemplary. See how a good Game Cock of two or three years' experience will, in five minutes, restore order into an uproarious poultry-yard. He does not use harsh means of coercion, when mild will suit the purpose. A look, a gesture, a deep chuckling growl, gives the hint that turbulence is no longer to be permitted; and if these are not effectual, severer punishment is fearlessly administered. Nor is he aggressive to birds of other species. He allows the Turkey to strut before his numerous dames, and the Guinea Fowl to court his single mate uninterrupted; but if the one presumes upon his superior weight, and the other on his cowardly tiltings from behind, he soon makes them smart for their rash presumption. His politeness to females is as marked as were Lord Chesterfield's attentions to old ladies, and much more unaffected. Nor does he merely act the agreeable dangler; when occasion requires, he is also their brave defender, if he is good for any thing. "They should sometimes offer resistance, and protect their flock of wives, and even kill a serpent or other noxious animal that threatens danger."—*Col.* lib. viii., cap. 2. A Hen, that I caught to examine, screamed till she called her husband to her assistance. Instantly his spur was buried deep in the fleshy part of my thumb, nor did his anger cease till the lady was at liberty. The same Game Cock, whenever fowls were killed for the table, made a point of attacking the man whose business it was to secure them, tore his trowsers, and made all possible bold resistance.

"A Black Polish Cock that our shepherd has, struck him the other morning on the temples, as he was catching one of the Hens, making the poor fellow faint and bleeding for some time. He said 'he did not mind hisself, but if er got vleeing

at arn of the childurn, he'd *soon* het his head off!' I hope he will not. Some years back I had an old Silver Polish that would spur some time with my *hat!* if placed before him."—*H. H.*

The Game Cock is in his native country really a more formidable creature than he is here. "The Dutch doctors are of opinion, that certain cases of hydrophobia which have occurred in Java, notwithstanding no instance of canine madness was ever known on the island, may be attributed to climate, and the state of constitution as affected by it. The bite of the large Indian rat, commonly called the *Bandicoot*, is supposed to occasion hydrophobia and certain death; an opinion which, I understand, is also entertained on the coast of Malabar. The bite of an enraged man is said to be as certain of producing hydrophobia as that of a mad dog, two cases of which had happened not long before our arrival. Dr. Le Dulx mentions several instances of hydrophobia succeeding to the bite of enraged animals, as in the case of a boy bit by a Duck which he had disturbed in its amours, and of a feeder of Cocks, who, being pecked in the hand by one of these animals in separating it from its antagonist, died under every symptom of hydrophobia and madness."—*Barrow's Voyage to Cochin China.*

"Omnes in primis Galli Gallinacei vitæ actiones veri patrisfamilias, et qui in eo omnem suam curam ponit, et studium, ut familiæ suæ de omnibus necessariis prospiciat, significare potest. Hæc enim ales totâ die quicquid virium habet, id totum ad suorum confert salutem, et nullius rei minus, quam sui ipsius solicita est. Unde sapientissimus Pythagoras tam providam animalis, et erga suos promptam naturam considerans, dixit, nutriendum quidem Gallum esse; at non immolandum."—*Aldrovandi.*

The first sentence does not quite construe, but means to say that the actions of the entire life of the Gallinaceous Cock show that he is a most excellent family man, placing his whole

care and study in providing all necessaries for his household. For this bird devotes whatever energy he has the livelong day to the good of his dependants, and is solicitous about nothing less than self. Whence the sage Pythagoras, considering the provident and attentive nature of the creature, declared that the Cock ought to be cherished, not sacrificed.

The Hen is deservedly the acknowledged pattern of maternal love. When her passion of philoprogenitiveness is disappointed by the failure or subtraction of her own brood, she will either go on sitting till her natural powers fail, or will violently kidnap the young of other Fowls, and insist upon adopting them. A Hen in my neighbourhood was kept incubating eleven weeks before she was allowed to lead forth a clutch. One of my own took *two* chickens away from the family of another Hen, and went about with them the greater part of the summer. A black Bantam belonging to H. H. "had a singular habit of adopting in the first instance a single half-grown chick. Another years he actually took a whole brood of eight little things off their mother's hands, first doing battle with her for them. These chicks she tended carefully for nearly two months, and then turned them off in the usual way."

In another case, and one which may be considered more extraordinary, a Hen, of rather a violent disposition, was much annoyed by a dozen small forsaken chickens repairing to her, when she was sitting on some eggs in the crib of an outhouse, and nestling under her at night. For a whole week she was at constant warfare with these little orphans, pecking them, and injuring some of them severely. On a sudden, she seemed to change her mind, and from that time became excessively fond of them, and in a day or two left her nest eggs, and proved a careful and tender mother to them for several months. This Hen was a Silver Poland.

"I witnessed this morning the daring courage of one of my Hens, in knocking a Crow, stunned and senseless on the earth,

that had attacked a chick of hers. She did not allow it time to seize the chicken, but struck at it with both beak and spurs."—*H. H.*, July 13, 1848.

"But all Hens are not alike: they have their little whims and fancies, likes and dislikes, as capricious and unaccountable as those of other females. Some are gentle, others sanguinary; some are lazy, others energetic almost to insanity. Some can scarcely be kept out of the house; others say, 'Thank you, but I'd rather be left to myself.'

"Finally, they differ in manners and disposition; for besides that some are called Domestic, others Wild, even among the Domestic ones, some by their very nature are so mild and familiar that they cannot get through life without the society of mankind; of which I am an eye-witness. For, some years ago, I kept at my country-seat a Hen, which, besides keeping by herself all day long, and wandering about the house apart from the companionship of her fellows, in the evening would go to rest nowhere but close to me among my books, *and those rather big ones (eosque majores)*, although she was often driven away. Some, on the other hand, so far from taking pleasure in the society of men, are so shy as to avoid them utterly; others are cruel to their own young; others suck the eggs that themselves have laid."—*Aldrovandi.*

A fact respecting Fowls, that has not been sufficiently regarded, but which goes far to prove their high antiquity, is the *permanent character* of the different varieties. Before attending much to the subject, people fancy that crossings and intermixtures may be infinitely multiplied and continued, restricted only by the algebraic law of Permutation and Combination; and such is the current opinion among many who are accustomed to see the diverse colours and appearance of Fowls promiscuously bred in a farm-yard. But the observant breeder knows that such is not the case. Nothing is more difficult than to establish a permanent intermediate race between even

nearly allied varieties. In a few generations the character reverts to that of one or other of the parents; the peculiarities of an old type reappear, and the new cross, on which the fancier was beginning to glorify himself, vanishes. The more heterogeneous are the parents, the more sudden is the return to old-established characters. The hybrid progeny are either utterly barren, or their young exhibit the likeness of their grandfather or grandmother, not of their actual parents.

"I have lately succeeded in producing a most magnificent hybrid breed between the Golden and Black Polish, having the rich spotted body of the former, and the handsome white crest of the latter. This was a work of some difficulty and time, and I am still so particular as to think it requires *one* more generation to bring them to perfection."—"It struck me that the Golden would be much improved by the handsome white crest of the Black Polish. By selecting at first some of the former that had a few white feathers on the head, and again crossing the best of these Hens with a *Polish Cock* for two seasons, they are at length approaching perfection, and will be the best and handsomest breed of all. A trial was made *vice versâ*, which brought them perfectly black, with immense black heads."—"It is rather a curious fact, that my hybrids, though originating from two varieties of Polish, neither remarkable for being good incubators, are early and very good and steady birds to set, but perhaps not remarkably sweet-tempered to other chicks. I cannot explain this, unless we take it on the rule that two negatives make an affirmative." So far so good. A subsequent report is, "My hybrid chickens are beginning to come out, and I find many 'cry back,' as I had expected. The only remedy is to hatch a good many, and then select. In a few years the breed will be established."—*H. H.*

Will it? Or is this "crying back" only the beginning

of the end? Peisthetærus may still have to utter his complaint:—

"Plague on thee; but this bird of mine croaks 'back again.'"

However, the latest accounts are favourable.

This is an instance of the results of crossing between two very closely related sorts, and many experimentalizing amateurs could produce similar instances. But the results of more discordant and ill-assorted matches are more immediate and striking. The Zoological Society possessed, in May, 1848, two birds bred between the Jungle Fowl (Sonnerat's Cock) and the Red Bantam, that bearing the greatest resemblance to the Bankiva Cock. Their pedigree and their relationship to each species is the same; namely, three-quarters Bantam and one-quarter Jungle Fowl. But they would be pronounced, by most persons to whom their origin was unknown, to be, one a Bantam, the other a Jungle Fowl. In 1849, the keepers informed me that, if hybrid chickens between the Jungle and Common Fowl are made to go on breeding in and in, the progeny is at last so weak, that it is impossible to rear them. A half-bred Sonnerat's Jungle and Game Cock, obtained from the Zoological Society, differs much in voice, carriage, and plumage, from any Common Fowl. He is not sterile, having already been the parent of chickens, but his disposition is strange and cruel: he has already killed one valuable Hen, and severely injured others by lacerating their combs and heads. This does not look as if the amalgamation of the Jungle and the Domestic Fowl were a very natural proceeding. "Le Roi, Lieutenant of the Rangers at Versailles, put a hen Golden Pheasant to a cock Pheasant of this country, and obtained two cock Pheasants very like the common kind: but the plumage had a dirty cast, and only a few yellow feathers on the head like those of the Golden Pheasant; and these two young males being paired with European hen Pheasants, one succeeded the

second year, and a hen Pheasant was hatched which could never be made to breed. The two Cocks produced no more."—*Buffon.* We reserve for the section on the Pheasant Malay Fowl, what is to be said respecting the absurd notion, that a cross with the common Pheasant has been instrumental in improving our Domestic Poultry. Baptista Porta states that he himself reared hybrids between a Dove, "Columbus," and a dwarf Hen, which combined the lineaments of either parent. We are not told whether they proved prolific or sterile; but, in fact, such strange combinations appear to be in a state of what mathematicians call "unstable equilibrium"—St. Paul's Cathedral turned upside down, and balanced by a cunning professor of gymnastics on the tip end of the cross—the centre of gravity is in the wrong place, and the least touch, the least hair's breadth of wavering, is sufficient to bring down ruin. Or an analogy may be imagined forth by those delicate chemical unions of matter, such as gunpowder and fulminating silver, where the elementary particles are combined indeed, but can hardly be moved without one flying one way and one another, leaving little that is visible or satisfactory behind them. Or a more homely comparison may be drawn from ill-made melted butter, which is really not melted butter at all, but a delicately manipulated commingling of water, flour, and oil. Unless the cook be skilful, the flour settles in one direction, the water runs a second way, and the oil floats a third; proving that melted butter, like gallinaceous monstrosities, is an unnatural affair. The Zoological Society also possesses hybrids between the Guinea Fowl and the Domestic Fowl; curious creatures, that are sterile hitherto, and look as if they intended so to remain. Their plumage is barred, not spotted, with dirty white and gray; there is something between a ruff and a hackle hanging around their necks; and every poulterer who sees them must wonder, not that they do not multiply, but that they ever came into the world at all. It is

very important, not only for practical purposes, but also as involving a great physiological principle, to show that species and varieties are permanent, not ever-changing; that like does beget like; and that creatures are not moulded and modified according to circumstances, and do not remodel their members or acquire new ones, as the exigency of their situation for the time being demands. In the case of Fowls, the theory of progressive development and change is certainly unsupported by evidence, though they and other domesticated animals are supposed to be instances in which it is peculiarly likely to be exemplified. Before the Christian era, the varieties of fowl were not less numerous, but in many instances were probably identical with what we have at the present day. Columella particularly recommends as the best, those sorts that have five toes and white ears—the marks of our highly-esteemed breeds, the Dorking and the Spanish. He warns his contemporaries that Bantams, "pumiliones aves," will prove troublesome, by preventing the eggs of larger birds from being properly fertilized. He dismissed the fighting breed as being foreign to his subject, which treated only of profitable sorts, and had nothing to do with cock-fighting. He mentions the Tanagric, the Rhodian, the Chalcidic, and the Medic, as tall birds of high courage, but prefers their own common sort, "nostrum vernaculum," for economical purposes, allowing, however, that a first cross produces fine chickens. "But the Adrianic Hens are small indeed; but they lay every day. They are ill-tempered, and frequently kill the (he does not say their own) young. And they are of all sorts of colours." Many of our larger Bantams exactly tally to this, particularly in the savage propensity to kill chickens which they discover to be substituted.

We may, therefore, infer that our existing Domestic Fowls are not improvements or modifications of those Cocks that are now found wild in the East, but that they have as much right

to be called original varieties or species (whichever term it may be thought right to apply to them) as any of those which are allowed to rank in the catalogues of the naturalist. The converse opinion, namely, that the forms of living creatures are undergoing perpetual changes, according to the circumstances under which they happen to be placed, has only to be stated in the exaggerated length to which some theorists have carried it, to refute itself by the outrageous shock it gives to experience and common sense. Buffon thus accounts for the existence of various species of Pheasants:—"Since no naturalist or traveller has given the least hint concerning the original abode of the Black-and-White (our Silver) Pheasant, we are obliged to form conjectures. I am inclined to suppose that, as the Pheasant of Georgia (the common species of our preserves), having migrated towards the east, and having fixed its residence in the southern or temperate provinces of China, has become the Painted (with us Golden) Pheasant, so the White Pheasant, which is an inhabitant of our cold climates, or that of Tartary, having travelled into the northern provinces of China, has become the pencilled or silver kind; that it has there grown to a greater size than the original Pheasant, or that of Georgia, because it has found in those provinces food more plentiful and better suited to its nature; but that it betrays the marks of a new climate in its air, port, and external form—in all which it resembles the Painted Pheasant, but retains of the original Pheasant the red orbits, which have been even expanded from the same causes undoubtedly that promoted the growth of its body and gave it a superiority over the ordinary Pheasant." By this sort of gentle transmutation, any one bird may be easily manufactured from any other. Dr. Erasmus Darwin proceeds boldly to the work, and carries it out on a grand scale. "As Linnæus has conjectured in respect to the vegetable world (where?), it is not impossible but the great variety of species of animals, which now tenant the

earth, may have had their origin from the mixture of a few natural orders.

"Such a promiscuous intercourse of animals is said to exist at this day in New South Wales, by Captain Hunter. And that not only amongst the quadrupeds and birds of different kinds, but even amongst the fish, and, as he believes, amongst the vegetables. He speaks of an animal between the opossum and the kangaroo, from the size of a sheep to that of a rat. Many fish seem to partake of the shark; some with a skait's head and shoulders, and the hind part of a shark; others with a shark's head and the body of a mullet; and some with a shark's head and the flat body of a sting-ray. Many birds partake of the Parrot: some have the head, neck, and bill of a Parrot, with long straight feet and legs; others with legs and feet of a Parrot, with head and neck of a Sea-gull."*—*Zöonomia*, vol. i., p. 499.

Again he continues, even yet more adventurously:—

"Another great want felt by animals consists in the means of procuring food, which has diversified the forms of all species. Thus, the nose of the swine has become hard for the purpose of turning up the soil in search of insects and of roots. The trunk of the elephant is an elongation of the nose for the purpose of pulling down the branches of trees for his food, and for taking up water without bending his knees. Beasts of prey have acquired strong jaws or talons. Cattle have acquired a rough tongue and a rough palate to pull off the blades of grass, as cows and sheep. Some birds have acquired beaks adapted to break the harder seeds, as sparrows. Others for the softer seeds or flowers, or the buds of trees, as the Finches. Other birds have acquired long beaks to penetrate the

* Some of our decoy-men call the Godwit a "half-bred Curlew;" whether they have any belief in such a pedigree, they could not, perhaps, themselves declare.

moister soils in search of insects or roots, as Woodcocks; and others broad ones to filtrate the water of lakes, and to retain aquatic insects. All which *seem to have been gradually produced during many generations, by the perpetual endeavour of the creatures to supply the want of food, and to have been delivered to their posterity with constant improvement of them, for the purposes required.*

"Would it then be too bold to imagine, that all warm-blooded animals *have arisen from* one living filament, which *the great First Cause* endued with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions, and associations; and thus possessing the faculty of continuing to improve by its own inherent activity, and of delivering down those improvements by generation to its posterity, world without end!"—*Id.* vol. i. p. 505.

These extracts are not given from any disrespect to the abilities or intentions of the writers, for they were both men to whom science is much indebted, but to show what strange and startling conclusions may be arrived at by arguing from premises that are not founded on proved facts, but on plausibility and fashionable hypothesis merely. But we will now maintain unhesitatingly, that it was not man or his domestication, or any inherent tendency in the creatures themselves, that gave feathered crests to the Poland Fowl, dwarfed the Bantam, expanded the Dorking, enlarged the Malay and Cochin-China Fowl, inspired courage to the Game Cock, or made the Hen, next to Woman, the most exemplary of mothers: unless we believe it was Man who arranged the strata in the ribs of the earth, and prescribed to the sea its everchanging boundaries. Man is powerful to have dominion; God alone is potent to create—His Providence to overrule. Not by Man, nor Chance, nor by generative force of an idol called Nature, have the things which we see, and the diversities in our living fellow-

creatures, been brought about. No; most thankfully, no. Then would matters have been far less harmoniously, far less benignantly arranged. It is our greatest consolation to feel assured that all the physical changes which this earth has undergone, and every renovation of its inhabitants, have been from the beginning foreordained by that all-wise and all-powerful Being, in whose presence (and we are ever in His presence) the best and greatest of us would be crushed into nothingness, did we not, to our comfort, believe that He is not the Creator merely, but the Father and Protector of every animated creature. "These wait all upon Thee, that Thou mayest give them meat in due season. When Thou givest it them, they gather it, and when Thou openest Thy hand, they are filled with good. When thou hidest Thy face, they are troubled. When Thou takest away their breath they die, and are turned again to their dust."

CHAPTER II.

THE REARING AND MANAGEMENT OF FOWLS.

I CANNOT but think that Mr. Dixon underrates the profitableness of good Fowls in the keeping of intelligent breeders; they may be unproductive in ignorant and careless hands, but not so when properly attended to. I understand that a very respectable gentleman of Rhode Island, quite experienced in the breeding and management of all kinds of Fowls, is wont to say, that four acres of land, devoted to the rearing of the best varieties of poultry, will, at common prices, be quite as productive as a farm of 150 acres cultivated in the ordinary way. The eggs of the common and cheaper kinds which might be used for incubators and nurses, would pay, or could be made to pay, if preserved as herein directed, and sold at the proper time, all expenses of feed, etc.; and it is well known that good Capons of the larger breeds will bring in any of our larger markets from 3 to 5 dollars per pair, and early spring chickens from 20 to 25 cts per pound. To make poultry profitable, then, it is only necessary that the better kinds be bred from, that suitable places be provided for them, that they be properly fed, and carefully and intelligently managed—things which have rarely conspired in any one instance heretofore to enable us to judge what *might* be made out of poultry under the most favourable circumstances. I have deemed this preliminary remark necessary before introducing the reader to what Mr. Dixon has further to say on the rearing and management of

Fowls. He says:—There are two classes of Fowl-breeders: those who rear them for amusement, and for the convenience of having a few chickens at hand to kill, and a few Hens on the goodness of whose eggs they can depend; and those whose only object is to increase their stock as fast as possible, as a matter of business, and solely for gain and profit. It may safely be stated that the number of those who can strictly be included in this latter division is extremely limited. Even the poor cottager who has just a couple of Hens, and is dependent upon some richer neighbour for a supply of eggs that will produce chickens, keeps them more because she finds pleasure in seeing the good creatures busying about with their broods, than for any profitable advantage she is likely to get by them. If she be poor, with a large family, she no more presumes to indulge herself with keeping Fowls, than she would with a caged Lark, or Goldfinch, or Thrush.* If she be lone and industrious, and so have a trifle to spare, or be the childless wife of a thrifty husband, she may gratify her pride with Cocks and Hens, to the envy of her neighbours. Even on large farms it is more as save-alls and collectors of scattered fragments, which would otherwise be wasted, that Fowls are serviceable. And if the farmer were to charge his wife with all the corn consumed in their rearing and fatting, we may venture to assert that a much smaller supply of them would be sent to market. These observations are less applicable to Ducks, Geese, and Turkeys; but in no case is any account taken of the time their tending demands, that being considered as part of the household routine, or even in the light of a relaxation. It is not by those who usually rear chickens, that large profits are made, although the gross sum returned at the

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* A *laying hen* can be kept on good corn at an expense of only 2 cts. per week. Where chickens have a run, they can be raised for half what they may be sold for.—Ed.

end of the year may appear to be large.* The greatest gainers are the travelling dealers who scour the country, and buy, for the lowest farthing they can get them, small lots of Fowls and eggs here and there, the superabundant produce of various housewives, either disposing of them immediately at advanced prices, or shutting up the birds at once to be fatted for market. The poulterers and feeders on a large scale in great towns doubtless derive a remunerating trade. It is the middle men who are the principal gainers. And when we shall have succeeded in producing peaches and nectarines for the million for dessert, we may calculate on rearing Poultry for the million for dinner.

Those who set about keeping Fowls, as amateurs for the first time, to whom alone we address ourselves, are recommended to begin with a limited number, such as a Cock and four or five Hens, of some distinct and choice breed; or, if it be desired to test the value of different sorts of Hens, one or two of *them* may be admitted, *care being taken to separate all the cross-bred progeny for the fatting coop and the dinner-table.* It will add to the amusement derived, if, in the first instance, strong three-quarter grown chickens are procured, instead of adult birds, so that an opportunity is given of watching their progress to maturity.

As to fowl-houses and other accommodations, so much depends upon circumstances, that minute directions are almost impertinent. The three grand requisites are cleanliness, dryness, and warmth. Those who wish for any thing on a large scale, will find plenty of plans and descriptions in books, so that if they choose they may lay out as much money in a hen-house as would build a comfortable cottage ornée. But most

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* The gross proceeds of eggs and poultry sold in the U. States amount to twenty millions of dollars. In 1840, it was 12,176,170 dollars.—Ed.

people have little choice in the matter: they must take or adapt such conveniences as they find around them. The Fowls themselves are not very fastidious; but we may be sure that the more we attend to the comforts of our domestic animals, the more they will reward our trouble.

In the first place, then, the Fowls should have a good roof overhead. Many such outbuildings are merely tiled, my own, till lately, among the number. During summer this construction is the best, as all night long the house is ventilated with warm air passing through the interstices of the tiles that have been heated by the sun the whole day. Of course the roof is supposed to be in such good repair, and the tiles so well overlapped, that no drippings of water from above are admitted. But in winter such draughts are very injurious, particularly as the Fowls will roost as near to the roof as they can get, so that their *head, the most sensitive part,* is most exposed to the influence of cold. In the autumn of 1847 I lost several favourite birds—a valuable Turkey among the number —solely from this cause, as I believe. The expense of ceiling with lath and plaster is trifling, the winter comfort of the Fowls must be much increased, and with it their health and profitableness. Leaving the door open for a while every day will sufficiently change the air in any weather.

Some people allow their Fowls to roost abroad all night, in all weathers, in hawthorn or elder-trees, that stand near the fowl-houses. But the plan is a slovenly mode of keeping even the humblest live stock: it offers a temptation to thieves, and the health of the Fowls cannot be improved by their being soaked all night long in drenching rain, or having their feet frozen to the branches. There is no difficulty in accustoming any sort of poultry, except the Peafowl, to regular housing at night.

Rough *poles,* two or three inches in diameter, with the *bark left on,* make the best roosting perches; to which a hen-ladder

should afford a convenient means of ascent, to save the birds the strain of flying up, and perhaps frequent falls in consequence of failure. A *hen-ladder is an indispensable piece of furniture*, though frequently absent. The nests or laying places may be either wooden fixtures contiguous to the wall, or the Hens may be accommodated with shallow hampers here and there, out of the way of dirt, and easily reached.* The fixed nests should be thoroughly whitewashed inside and out, at least once a month during summer, to destroy fleas, &c. The hampers may be taken down, shaken out, and completely purified at intervals.

It is as well to have the fixed laying places made not larger than is sufficient to accommodate a full-sized Hen, in order to prevent two or more Hens from quarrelling for the same nest. I have seen excellent laying and sitting-boxes, of a convenient capacity, built with brick-work, up against one or more sides of the fowl-house, much in the same way as is seen in the lockers in old-fashioned manorial dovecotes. Each box was fitted with a loose, thin wooden bottom, to slide over the bottom of stone or brickwork, and having a half-inch rim in front, to keep the eggs from rolling out. The plan is a good one. After each sitting, the sliding bottom of the box can be taken out, scoured and scalded, and the brickwork washed and white-washed, as may the wooden slide also. A great convenience, especially where a numerous and various head of poultry is kept, will be found in a range of small separate fowl-houses about a cubic yard or a little more in size, each with its own door fastened by a button, and a latticed aperture to admit air over the door. Into these, each breeding fowl, with her young, can be separately driven from the coops at night, and remain there without disturbance or quarrels till the proper time to go abroad next day. Each of these private

* Vide Mr. David Taggart's letter at the end of this chapter.—Ed.

apartments can be gravelled or littered, according to the requirements of their occupants, and supplied with pans of water, green turves, a cabbage, a handful of corn, or whatever else is wanted. A recent traveller in Connemara found the cottagers' Hens accommodated with neatly worked straw-baskets, fashioned like a reticule, or a watch-pocket at the bed's head. These were hung up against the wall at one end of the hovel for the Hens to lay in; the reason for the arrangement being, that the sow and pigs occupied the other end, and would surely devour any eggs that were laid on the ground. Though eggs fetched only fourpence a score, it would not do to lose them: other provisions bore proportionate prices. The paradox of starvation amidst cheapness and abundance is extremely puzzling.

If the floor of the fowl-house can be swept every day, and sprinkled with fresh sand, gravel, or ashes, so much the better. Dust and cobwebs on the walls, and up the corners, are neither a decoration nor an advantage. Cobbett says that no pigsty is what it ought to be, unless it is clean enough and dry enough for a man, upon a pinch, to pass a night in it with tolerable comfort; we say that no fowl-house is what it ought to be, unless it is in such a state as to afford a lady, without offending her sense of decent propriety, a respectable shelter on a showery day. A false ceiling of wood suspended beneath the roosting perches is a mode sometimes adopted of keeping the floor of the house clean, by catching the dung as it falls from the Fowls; but the plan requires extreme cleanliness on the part of the attendants; the filth out of sight is apt to be out of mind, and allowed to accumulate, and is also brought too close under the Fowls themselves, even if it be removed daily. To close all, a good door is requisite, with a small wicket gate at the bottom, to allow ingress and egress. It is better that Turkeys should not roost in the same house, as they are apt to be cross to sitting and laying Hens; if they

do, the wicket must be of proportional size. My readers, I hope, will not be offended at a hint that a hole that will admit a Turkey, will also allow a Hen to pass; and that there is no need to make a smaller aperture by the side of the larger, unless they like the look of it. A first-rate lock can do no harm on the door, as Columella advises, "That no cats or snakes have access to the birds, and that other equally noxious pests* be kept at a distance." Possibly even in classical times there were such creatures as fowl-stealers.

With peace and plenty the newly arrived young Fowls will thrive apace. Soon after they are full-grown, the comb both of the Cock and the Hens will be observed to become of a more brilliant red, the Cock will crow more lustily, and with more of a *canto fermo* than before, the Hens will grow animated, restless, full of busy importance, as if a new idea had lately broke in upon their minds. By-and-by they will commence prating and cackling, and in a few days the delighted Pullet will lay her first egg. It is hard to say which receives the most pleasure at contemplating the smooth, immaculate production, the Hen or her amateur owner.† And when, time after time, the first instalment is followed by similar deposits, she thinks herself, and is thought, a perfect paragon. Such are the pleasures of productiveness. Those whose inherited wealth comes to them quarterly or annually, without any thought or exertion on their part, have no conception how bright and beautiful the money looks of which they can say, "I have fairly and honestly earned it; I have done something useful for it." So with the Hen; she is an industrious little save-all. She rescues from waste many a minute portion of

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* "*Pestis*, a rogue, a villain."—*Ainsworth's Dictionary.*

† The very first egg, however, which a Pullet lays is seldom quite immaculate, but bears marks of the effort it has cost: those subsequently laid appear with greater purity.

nutritious matter, collects it in her crop, and converts it into wholesome food for Man. After a while her own turn comes to be served; the pleasures of motherhood must be accorded to her. Nature has been sufficiently tasked in one direction; she becomes feverish, loses flesh, her comb is livid, her eye dull. She sees in her heated fancy her young ones crowding around her, bristles her feathers to intimidate an imaginary enemy, and, as if they were already there, she utters the maternal "cluck"—"chioccia"—"glocientes"—"clock-hens;" "Sic enim apellant rustici aves eas quæ volunt incubare."

In no other bird, that I am aware, is the desire of incubation thus manifested. I am very much inclined to attribute it to the imagination of the Fowl anticipating the duties that are to follow. The cry is exactly the same, although other various tones are afterwards made use of; for example, the acute voice with which she calls her chicks to partake of some dainty, which is also used by the male bird to assemble his Hens on a similar occasion,—and the short *staccato* note which gives warning of danger from a hawk, or a strange dog. Indeed, the language of Fowls, though inarticulate, is sufficiently fixed and determined for *us* to know what some of it means. But the Hen that "clucks" is evidently thinking about her future young; and she is not alone in indulging such dreams of offspring. A caged Virginian Nightingale has been recorded to go through the pantomimic actions of feeding its brood in the spring (*Gard. Mag.*). A Bantam Hen was barren, but always entered the nest daily, never laying; but at last became broody, was supplied with eggs, and proved an excellent sitter and mother.

When the determination to sit becomes fixed,—there is no need to indulge the first faint indications immediately—let her have the nest she has selected well cleaned and filled with fresh straw. The number of eggs to be given to her will depend upon the season, and upon their and her own size.

The wisest plan is not to be too greedy. The number of chickens hatched is often in inverse proportion to the number of eggs set; I have known only five to be obtained from sixteen. Hens will in general well cover from eleven to thirteen eggs laid by themselves. A Bantam may be trusted with about half-a-dozen eggs of a large breed, such as the Spanish. A Hen of the largest size, as a Dorking, will successfully hatch at the most five Goose's eggs. But if a Hen is really determined to set, it is useless as well as cruel to attempt to divert her from her object. The means usually prescribed are such as no humane person would willingly put in practice. If the season is too late or too early to give a hope of rearing gallinaceous birds, the eggs of Ducks or Geese may always be had; and the young may be brought up, with a little painstaking, at any time of the year. And if it be required to retain the services of a Hen for expected valuable eggs, she may be beguiled for a week or ten days with four or five old addled ones till the choicer sort arrive.

Three weeks is the period of incubation of the common Hen.* Sometimes when she does not sit close for the first day or two, or in early spring, it will be some hours longer; more rarely in this climate, when the Hen is assiduous and the weather is hot, the time will be a trifle shorter. The growth of the chick in the egg has been so fully and so well described by many writers, from Aristotle down to Reaumur, that I need merely refer the reader to them. The observations of the latter particularly have appeared in almost every compilation that has been published on the subject; and I must think it better taste for common inquirers to betake themselves to such sources of information, illustrated as they

* I have, in warm weather, had chicks at the end of the 18th day; and a friend E. R. C. assures me that he had some to come out on the 27th day.—Ed.

are by good engravings, than to desire that a set of half-hatched eggs should be broken to gratify their curiosity. A shattered and imperfectly formed chick, struggling in vain in the fluid that ought to perfect its frame, till it sinks in a gradual and convulsive death, is a horrible spectacle, though on a small scale.

"The shell of all Eggs, when newly laid, is nearly half as thick again as it is when the young bird has to penetrate it. Otherwise, especially in the case of some thick-shelled Eggs, those of the Guinea-Fowl for instance, the tender little creatures would be scarcely equal to the task. As to what becomes of the other part of the shell, there is an ingenious theory by Knapp. 'The shell of the egg appears to be designed for the accomplishment of two purposes. One of the offices of this calcareous coating, which consists of carbonate and phosphate of lime, is to unite with the white of the Egg, and form, during incubation, the feathers and bone of the future young one; but as a large portion of this covering remains after the young are produced, its other object is to guard from injury the parts within!'"—*H. H.*

Shortly before the time of hatching arrives, the chickens may be heard to chirp and tap against the walls of their shell. Soon a slight fracture is perceived towards the upper end, caused by force *from within*. The fracture is continued around the top of the egg,* which then opens like a lid, and the little bird struggles into daylight. The tapping which is heard, and which opens the prison doors, is caused by the bill of the included chick: the mother has nothing to do with its liberation, beyond casting the empty shells out of the nest. At the tip of the bill of every new-hatched chick, on the upper surface, a whitish scale will be observed, about the size of a pin's head, but much harder than the bill itself. Had the beak been

* I have known the fracture occasionally to be towards the small end; in such cases the chick may require assistance.—Ed.

tipped with iron to force the shell open, it would not have been a stronger proof of creative design than is this minute speck, which acts as so necessary an instrument. In a few days after birth, when it is no longer wanted, it has disappeared; not by falling off, I believe, which would be a waste of valuable material, but by being absorbed and becoming serviceable in strengthening the bony structure, minute as the portion of earthy substance is. And yet some people direct, that as soon as the chick is hatched, this scale should be forced off with the finger nail, because it is injurious!

All chicks do not get out so easily, but may require a little assistance. The difficulty is, to know when to give it. They often succeed in making the first breach, but appear unable to batter down their dungeon walls any further. A rash attempt to help them by breaking the shell, particularly in a downward direction towards the smaller end, is often followed by a loss of blood, which can ill be spared. It is better to wait a while* and not interfere with any of them, till it is apparent that a part of the brood have been hatched some time, say twelve hours, and that the rest cannot succeed in making their appearance. After such wise delay, it will generally be found that the whole fluid contents of the egg, yolk and all, are taken up into the body of the chick, and that weakness alone has prevented its forcing itself out. The causes of such weakness are various; sometimes insufficient warmth, from the Hen having sat on too many eggs; sometimes the original feebleness of the vital spark included in the egg, but most frequently staleness of the eggs employed for incubation. The chances

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* On finding an egg to be cracked, and no progress made during the space of six hours, I have ventured with the point of my knife to render a little gentle assistance, but on seeing any trace of blood, I instantly desist, and return the egg to the nest. Such egg must, however, be watched as assistance finally may be necessary.—Ed.

of rearing such chicks are small, but if they get over the first twenty-four hours they may be considered as safe. But all the old wives' nostrums to recover them are to be discarded: the merest drop of ale may be a useful stimulant, but an intoxicated chick is as liable to sprawl about and have the breath trodden out of its body as a fainting one. Pepper-corns, gin, rue, and fifty other ways of doctoring, are to be banished afar, together with their subjects, namely,

> "All the unaccomplished works of Nature's hand,
> Abortive, monstrous, or unkindly mixed,
> Embryos, and idiots, eremites, and friars,
> Into a Limbo large and broad, since called
> The Paradise of Fools, *to few unknown.*"

The only thing to be done, is to take them from the Hen till she is settled at night, keeping them in the meanwhile as snug and warm as possible. If a clever, kind, gentlehanded little girl could get a crumb of bread down their throats, it would do no harm; but all rough, violent, clumsy manipulation is as bad as the throat-tickling of the hard-fingered hangman. Animal heat will be their greatest restorative. At night let them be quietly slipped under their mother; the next morning they will be either as brisk as the rest, or as flat as pancakes and dried biffins.

Those who have ever undertaken the amusing task of tending a brood of chickens from the shell, must have observed the great change of apparent size which the first few hours produce. At the time when I had an affectionate assistant in such matters, we used often to remark, how impossible it would be to re-pack again in the same shell the creature which was contained in it only a little while ago. We certainly never tried the experiment, but the eye could measure with some degree of accuracy, besides allowing for the elastic coat of down which before had been flattened by moisture. How could the vivacious little wretch have made such a sudden

start? Not from what it had eaten or drunk, certainly. The solution appears to lie in the fact which the best comparative anatomists have recorded, that the bodies of most birds are injected with air to a considerable extent. While the embryo remains in the shell, its vascular parts are compressed, or contain merely fluid for future nourishment, but as soon as the lungs come fairly into play, air is made to inflate many an unsuspected cavity, even, perhaps, to the tip of every filament of down. Chamælion-like, the chick makes a good meal on the atmosphere. A case in point may be seen when the shell of a chrysalis is disrupted by the emerging butterfly; and the process is so absolutely magical, that those who have never witnessed it will be amply repaid for their trouble, if they collect a few chrysalides (those of the gooseberry-moth, for instance) out of their garden, and keep them under a tumbler in their dressing-room, or on their side-board or writing-table, or wherever they are most likely to secure the chance of being in at the birth. The black, hairy, quick-running caterpillar, which is so common, may be secured, fed upon common groundsel, and will speedily be metamorphosed into a handsome tiger-moth. Ten minutes after it has burst its shelly covering,—

> "Not all the Queen's horses, and all the Queen's men,
> Could get tiger-moth into his shell again."

It creeps out with a little moisture adhering to it, the wings appear merely rudimental, soon it is seized with a shivering fit, it grows larger with every successive attack of tremulousness, the wings may be seen to extend as a curtain is let down, the moisture is absorbed or evaporated, its breathing-places in its sides are at work, it is thoroughly injected with air, and none but those who know the whole truth would believe, on seeing the narrow case by the side of the expanded insect, that Euclid had been practically contradicted, and that the greater had been contained within the less. The chicks of

Turkeys and Guinea Fowls exhibit this sudden expansion even more strikingly than those of Cocks and Hens.

But what are we to do with the new-come chickens? Let us leave them quiet with their mother six or eight hours, or till the next morning. Now is the time to listen to quackeries, and fooleries, and heaps of babble and rubbish, if we do not choose the better part of being as deaf as stones. How wonderful must be the productive energy which is at work in the universe, to replace the myriads of chickens and children that have been laid low by sage nursing! Whole pepper-corns, gin, laudanum, tight-swaddling, cramming, dips into cold water, suffocation with foul air, make us wonder that either biped, plumed or unplumed, is to be found in any other than a fossil state.

A roomy, boarded coop, in a dry sunny spot, is the best position for them during the first month; after which it may be left open during the day for the Hen to retire to when she pleases. In quiet grassy places, such as one sees on the skirts of green commons and by the sides of country churchyards, the Hen need scarcely be cooped at all. As to food, let them have every thing which is not absolutely poisonous.* Sloppy matters are better avoided till the little things are old enough to eat a few grains of *good* barley, which they are before it is usually suspected; afterwards they do no harm. A little wheat, of the best sample, will then not be thrown away upon them. Meat and insect diet are almost necessary; but raw vegetables chopped small, so grateful to young Turkeys, are *caviare* to chickens. But whatever be the bill of fare, the meals must

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* If wet food be given, the chick is obliged to take water, whether it require it or not, in order to get a sufficient supply of solid food, and diseased bowels will be likely to follow; whereas, if the food be dry, they can supply themselves with food and water according to their pleasure.—Ed.

be given at short intervals; as much as they can swallow, as often as they can eat. The reader will please to remember that when he came into the world, all that was expected of him was to grow and be good-natured. He had not to provide his long-clothes out of his mother's milk, nor to elaborate pinafores from a basin of soaked biscuit; but for poor little chickens, the only known baby-linen warehouse is situated in their own stomachs. And with all their industry, they are only half-clad till flesh and bone stop growing for a while, and allow down and feathers to overtake them.

The period at which they are left to shift for themselves depends upon the disposition of the Hen. Some will continue their attentions to their chicks till they are nearly full grown, others will cast them off much earlier. In the latter case, it may be as well to keep an eye upon them for a few days till they have established themselves as independent members of the gallinaceous community. For chickens in this half-grown state are at the most critical period of their lives. They are now much more liable to disease than when they were apparently tender little weaklings crowded under their mother's wings. It is just before arriving at this point of growth, that artificially hatched chickens are so sure to fail, whether hot air, hot water, or sheepskin, be the substitute for the mother's care. Mere incubation has long ago been performed artificially with success in various ways. Any lady or gentleman, at any time of the year, can effectually complete that process by means of a spirit-lamp and a sand-bath in their study or boudoir. The mere hatching of chickens deserves little credit, however ingeniously it is done. But to rear them on a great scale is the difficulty that has not yet been surmounted in this country. A visit to the purveyors of Poultry for the Million is not repaid by the sight of an approach to the fulfilment of their great promises. They hatch, but they cannot rear, and

are not likely to do so.* The chicks for the first week or two look well enough, and it is not to be expected that the very first seeds of disorder should be apparent; but no farmer's wife would be pleased that her stock had the look of those that get to be six weeks or two months old. Compare the tables of mortality amongst infants in the French Foundling Hospitals with those calculated on the families of healthy English cottagers, and the contrast will be a guide to the relative merits of the natural and the artificial modes of rearing Chickens, Turkeys, and Guinea-fowl. And what becomes of the Hens belonging to such establishments which desire to sit, but are prevented on principle from doing so, on eggs at least? They are just put up to fatten as soon as they become broody, and after a certain time killed to be eaten. No one who knew any thing about Fowls would select such for his table from choice. It cannot be expected that those Professors, who are unable to raise sufficient chickens for the supply of a small neighbourhood, should be able to communicate the art of affording plenty to a nation, even by means of a patented apparatus and an expensive license. Were all the chickens reared that are hatched by Hens alone, poultry would be much more abundant than it is at present. The artificial hatching of Ducks and Geese is a more promising speculation than the same attempt upon Fowls; but if it were entered upon to any

* My friend H. L. Devereux, Esq., of Dedham, Mass. writes me, "My experience in raising Fowls is, that the young chicks are as well off without a Hen as with, provided you give them a *dry, warm* place, they need much to be kept dry. I have this season raised about a dozen fine pullets of the Forbes Stock, *without a Hen*, which did better than those I let run with a hen. I gave them to eat, cracked corn, wet with water or milk, curd, broken wheat, bread, some potatoes, and, in fact, they will eat almost any thing you throw to them."—Ed.

extent, it would be found that the expenses of superintendence and nursing more than absorb all profit.

The artificial hatching described by Fortune (*Wanderings*, p. 78), as successfully carried on in Chusan, was only practised on Ducks; and the season when he saw it in operation was the end of May, a time of year when there would be little difficulty in rearing Ducklings so produced in England, if time and trouble were disregarded.

As to fattening fowls, Mr. Dixon says, the old Dutch mode is by no means a bad one.

"Cardan is the authority, that if you mingle fat lizard (?),* saltpetre, and cummin, with wheat flour, and feed Hens on this food, they will get so fat, and the people who eat them will grow so stout, as to burst. John Jacob Wecker records that he learnt the following secret of fatting Hens from a certain Hollander. 'In the kitchen,' he says, 'make to yourself a box, divided into many little boxes, each one with its own opening, through which the Hens can thrust their heads out of doors, and take their food. Therefore, in these little boxes, let youthful Hens or Pullets be incarcerated, one in each: let food be offered every hour, drink being interdicted for the time. But let the food be wheat, moderately boiled. The little boxes ought to be pervious below, that the excrements may pass through, and be diligently removed every day. But the Hens ought not to be shut up beyond two weeks; lest they should die from too much fatness. I am told, also, that among some people they get gloriously fat, and quickly, if beer is offered them for drink, instead of water; also, that, if they are fed on brewer's grains, they lay more, as well as larger Eggs.'"—*Aldrovandi.*

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* May not "lacerta" in the original text be a misprint or slip of the pen for "lacerato?" If so, "fat lizard" should be replaced by torn or "shred fat."

A correspondent of the Agricultural Gazette, thus describes the method which he successfully practised for many years in India:—"The fowl-house, or rather feeding-house, for only fattening Fowls were permitted to be in it, was kept as cool as possible, (in Bengal, remember,) and almost dark. Each Fowl had a separate pen; they were fed once, and only once a-day, with rice, boiled as rice ought to be for Christians: not to a mash; but so that grain from grain should separate. The quantity to each Fowl was about two ounces (before boiling). For the first three days to each was given about a tea-spoonful of 'ghoor,' a coarse sugar—about half as much again of treacle would be an equivalent. This commencing with sugar was held to be very important; it cleansed the birds and disposed them to fatten; no water was given; neither was any chalk or gravel, both being unknown in the country. In about three weeks the Fowls were generally fat. I never, in England, have seen finer than those I have killed within that time, not even at Mr. Davis's of Leadenhall Market. If they did not fatten in three weeks, we supposed that they did not mean to fatten, but this was a rare occurrence, and proceeded, no doubt, from some ailment beyond my power of discovering; but, fat or otherwise, they were never tough. To boil the rice in buttermilk is by far preferable to boiling it in water; let the Fowls be as young as you can, if of full growth. Many people run away with an impression that Fowls fed on rice will go blind; it is dirt and sourness that cause it. How often do we see a trough loaded with meal food, sufficient for two or three days, placed before the unhappy prisoner in the pen, who cannot escape from it, or seek other and sweeter food! When the Fowls have done feeding, the trough should be removed, cleaned, and exposed to the air until the next day's feeding time. At my factory, in India, the troughs were every afternoon thrown into a pond; there they remained until next morning, when, after an hour

or two's sunning, they were returned to the coops: no blindness was known there."

We may observe that a temperature which feels cool in Bengal, would be thought warm here; and that, in this country of rapid digestion, a single meal a day is insufficient to fatten Fowls. It is a great point to keep them without food the first twenty-four hours they are shut up, allowing them to have drink only. If food be offered to them as soon as they are deprived of liberty, they will sulk and refuse it, and, perhaps, be several days before they feed heartily; but, if they be starved till they feel a craving appetite, hunger will overcome their sullenness, and they will afterwards greedily devour their allowance.

The oldest and toughest Fowls may be made into a savoury and nutritious dish by the following method, which is given as a tried and warranted recipe, because such birds are so often pronounced uneatable, thrown away, and wasted.

When the Fowl is plucked and drawn, joint it as for a pie. Do not skin it. Stew it five hours in a close sauce-pan, with salt, mace, onions, or any other flavouring ingredients that may be approved: a clove of garlic may be added where it is not utterly disliked. When tender, turn it out into a deep dish so that the meat may be entirely covered with the liquor. Let it stand thus in its own jelly for a day or two (this is the grand secret); it may then be served in the shape of a curry, a hash, or a pie, and will be found little inferior to pheasant under similar circumstances.

The cookery of the middle ages abounded in practical jokes. Here is a very witty one with a Chicken. "If you wish a Chicken to jump in the dish, take," says Albertus Magnus, "quicksilver, and powder of calaminth, and pour them into a glass bottle, seal it, and put it inside the hot Chicken: for as the quicksilver gets warm, it moves itself, and will make the chicken jump." The brilliancy of this trick is only to be

rivalled by the epigrammatic point of the question, "Did you ever see *a bun dance* on a table?"

A specimen or two may be given of the savoury messes in which our great grand-fathers delighted.

"The other delicious Broths, which none but the Rich can afford, are, the Bisk* of Pigeons; the Pottage of health; Partridge *Broth* with Coleworts, &c. &c., and the *Pottage of Fowls with green Pease.* We put the Fowls to boil with Broth, and skim them well; then pass the green Pease through a Frying-pan, with Butter, or melted Bacon; and afterwards have them stew'd apart, with Lettices; and when the Fowls are done, we mix the Broth and Pease together, and send it to the Table.

"*Chickens* are roasted either larded, or *barded, i. e.,* covered before and behind, with a thin slice of Bacon, and wrapped in Vine-leaves, in their Season.

"*Fowls* are *pickled* with Vinegar, Salt, Pepper, and Lemon-peel, and are left in their Pickle till they be wanted; when wanted, they are taken out, put to drain, and after they have been fried in Butter, they are put to stew for a few Minutes, in some of the Pickle, and then carried to Table."—*Dennis de Cœtlogon.*

Fowls for cooking that are required to be sent to a distance, or to be kept any time before being served, are plucked, drawn, and dressed immediately that they are killed. The feathers strip off much more easily and cleanly while the bird is yet warm. On special occasions, such as Michaelmas, for Geese, and Christmas, for all sorts of Poultry, when large numbers have to be slaughtered and prepared in a short time, the process is expedited by scalding the bird in boiling water, when the feathers drop off almost all at once. But Fowls thus treated are generally thought inferior in flavour, and are certainly

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* Derived from *biscuits*, twice cooked.

more likely to acquire a taint in close warm weather, than such as are plucked and trussed dry. The Norfolk poulterers, especially those in the neighbourhoods of Norwich and Great Yarmouth, may, in this art, challenge the whole world for skill and neatness. All bruises or rupturing of the skin should be avoided. A coarse half-worn cloth, that is pervious to the air, like a wire safe, and perfectly dry and clean, forms the best wrapper. The colour of yellow-skinned Turkeys, which, however, are equally well flavoured, is improved for appearance at market by wrapping them twelve or twenty-four hours in cloths soaked in cold salt and water, frequently changed. For the same purpose the loose fat is laid first in warm salt and water, afterwards in milk and water for two or three hours. The Essex mode is to dust with flour, both inside and out, any fowls that have to travel far, or hang many days in the larder.

To those who desire to keep only a few Fowls for the sake of fresh eggs, etc. etc., and who are quite limited as to space, the following remarks of one of Mr. Dixon's correspondents, will prove interesting. He says—"There is one thing I think necessary to impress upon those who keep Fowls in a confined place, which is cleanliness. The droppings in their roosting place should be taken up every morning, and a handful of dry ashes strewed under their perches. I have only a confined yard in which to keep my Fowls. The plan I adopt is to give them every day plenty of fresh cabbage leaves, and once or twice a week I have some onions chopped up for them, of which, after a time, they become very fond. I let them have a plentiful supply of burnt oyster shells. I put the shells into the fire until they are red hot, and well burnt. I then break them into small pieces with the fingers, but not into powder. I am satisfied that this is much better for them than crude lime; they eat great quantities of it. Their other food consists of the best barley and oats, and to compensate

for the want of insects, I occasionally give them a little raw meat. By adopting this plan I keep them in decent health. The only thing they appear to want is more exercise, which, I think, is the reason I cannot rear chickens well, for with all my attention I find they are stunted in their growth, no doubt from the want of a sufficient run." I can only say that a Cockerel which this gentleman did me the favour to send me, showed no symptoms of stunted growth. He was a magnificent black Spanish fellow, with all the distinctive marks of the breed highly developed. He has since vanished, and is now doubtless the pride of the thief or the receiver, in some sequestered dingy back lane. What a contrast such a situation for Fowls is, to that described by another correspondent. "I wish you could see my poultry-yard, which is in fact no yard, being part of our park, where I always have the young broods, and as some of it is now a hay-field, it is a nice place for them to run about in."—*H. H.*

It has been suggested that none of the writers on Poultry have dwelt sufficiently upon the profit and convenience of those who keep a few Fowls for the sake of their eggs, having everlasting layers, with perhaps one or two sitting Hens to enable them to keep up their stock. If the sitting Hens were such as lay *brown* eggs, and the others *white* ones, it would save trouble. This arrangement could easily be carried out by selecting one or two Game or Cochin China Hens that lay dark eggs, and are all excellent incubators, and having the laying Hens Black Spanish, or Silver Hamburg, or the Andalusian variety, imported by Mr. Barber.

Another plan, quite feasible, is to keep no Hens whatever except those which lay everlastingly, and to make hen Turkeys perform the duty of incubating for all parties.

The following hint may be useful to those who are not provided with a stud of everlasting layers:—"Amongst all the remedies I have seen recommended for diseases in Poultry, I

have never seen Jalap mentioned, and *I* have ever found it most efficacious; indeed, for many years I have never used any other: as it appears to me to be the natural medicine for Fowls. It is astonishing how soon it sets them up. In the country, where they have a good run, they may not require so much physic; but even there I should imagine it would be occasionally useful: as, for instance, when they have had the incubating fever on them late in the season, and I have not wanted them to sit, one or two doses have relieved them from it entirely. In short, with me, it is a regular 'Morrison's Pill' for Fowls; as it seems to cure all their complaints. The dose for a full-sized Fowl is 15 or 16 grains. I moisten a small piece of crumb of bread about the size of a hazel nut, and mix the powdered jalap with it."

An inquiry has been made whether common salt would not be a good thing to promote laying in Hens that were necessarily kept in close confinement. But among the most experienced practical rearers of Poultry there is an old, and I believe well-founded prejudice against their eating salted food, even in very small quantities. I have seen in some books Glauber's salts recommended, but should be sorry to try them, except as an experiment on a lot of worthless or diseased Fowls. Gallinaceous birds reared by the sea-side or on the banks of a salt-water river, avoid the saline stream, and search for food and drink as far inland as they can range. I know not either how common salt could be administered to them. It is more than doubtful whether the Hens would pick it from the ground in its crystalline form, and it would be difficult to distribute it in equal doses by means of bread, &c., soaked in salt water: the chances are that some of the Hens would be poisoned. Pigeons, I think, are the only domesticated birds to whose health salt is beneficial, and they prefer it in combination with animalised matters; the more offensive it is to our senses, the more agreeable it appears to be to theirs.

"I was told the other day of a gentleman at Highgate, who, knowing that salt was beneficial to Pigeons, gave some to his Hens, in consequence of which they all died. I have found a little hemp-seed efficacious for making them lay, and a little good ale) I give them all that is left at table) will have that effect—not bread soaked in ale; for it is a golden rule to know that all moist food is injurious to Fowls, unless they are intended shortly for the table. All cooked vegetables, except potatoes, I have found bad for them."—*L. B.*

An abundant supply of lime in some form should not be omitted; either chopped bones, old mortar, or a lump of chalky marl. The shell of every egg used in the house should be roughly crushed and thrown down to the Hens, which will greedily eat them. A green living turf, like those given to larks, only larger, will be of service, both for its grass, and the insects it may contain. A dusting-place, wherein to get rid of vermin is indispensable. A daily hot meal of potatoes, boiled as carefully as for the family table, then chopped and sprinkled or mixed with pollard, will be comfortable and stimulating. The French plan, namely bread soaked in hot *vin ordinaire*, beer, or cider, appears from experience to be better suited to fattening than to laying Fowls. After every meal of the household, the bones and all other scraps should be collected and thrown out. Hens are great pickers of bones; I have seen a Hen devouring the flesh and cleaning the skeleton of her dead husband, doubtless on the native Australian principle of respect and affection for the deceased.

It is a singular fact, that pullets hatched very late in Autumn, and therefore of stunted growth, will lay nearly as early as those hatched in spring. The checking of their growth seems to have a tendency to produce eggs; of course very tiny ones at first.

Fowls that are kept in close confinement will greatly miss the opportunity of basking in the sun: warmth is almost as

necessary for thriftiness as food. Even in Italy, it was recommended by Columella that "Fowl-houses ought to be placed in that part of the farm which faces the rising sun in winter: let them be joined to the oven or the kitchen, so that the smoke may reach the birds, it being particularly healthy for them." Modern amateurs have thought it would be a good plan to have an Arnott or Dean stove erected in their fowl-house, which could be lighted an hour before the Cocks and Hens went to roost. Sharp weather is always a sufficient excuse for the unproductiveness of Hens; but it may be suggested that there are cases in which Fowls do lay, without their owners being much the better for the eggs. This, however, is less likely to happen in an aviary, if I may be allowed so to term it, than in the farm, or the unenclosed poultry-yard. It is an unfortunate fact, that in the country, where Fowls are allowed unlimited range, choice specimens are remarkably apt to disappear; and if they do not, their eggs do. The proprietor is sure of just as many of the select kinds as he can himself lay hands upon. He may often have the satisfaction of buying in a neighbouring village a fine brood of chickens, hatched from eggs purloined from himself, and be thus considerately saved all trouble of rearing them. These agreeable tricks are played by a set of rascally half-poaching pilferers, who are connected with the lowest class of dealers. If any fear of detection arises, the "fancy" birds are immediately forwarded to the metropolis, or some other large town at a distance.

The curiosities and absurdities of the literature of poultry-breeding are inexhaustible. One "Ornithologus" states, on the report of his people, that, in order to obtain all female chicks from a setting of eggs, it is only necessary to set the Hen while the moon is in the full, and to prefer such eggs for the purpose as have been laid when the moon was at the full; *and also* to contrive that they be hatched at the full moon; but Aldrovandi, who quotes him, remarks, that it

would be difficult to combine all these conditions, seeing that chickens are hatched in three weeks, and that there are four weeks from one full moon to another.

The same Ornithologus testifies to having read in a certain German manuscript, that if eggs are stained with any colour, chickens of the same hue will be produced. Others direct that the aviaries in which they are bred should be covered, in every part, with white hangings; with what view is not apparent. But whoever wishes to have most beautiful chickens, "visu jucundissimos," must pair his Hen with a Cock Wood Pigeon, or Partridge, or Pheasant. Directions, too, are given from Aristotle, for obtaining chickens with four wings and four feet.

It is not our intention to enter minutely into the physicking and doctoring of Fowls. One or two authentic cases will be more instructive than a score of prescriptions. The epidemic diseases to which they are subject are more easily warded off by prophylactic than remedial measures. In bad cases, either of roup or gapes, it is, nine times out of ten, more humane, as well as cheaper, to knock the poor little sufferer on the head at once, than to let it linger on to almost certain death. It is natural to try to do all we can, either for an old favourite, or for a valuable specimen; but even when we succeed in restoring the patient, it is usually only a temporary recovery; and it cannot be wise to keep such valetudinarians to become the parents of future broods.

"When I came home the other day from the country, I found one of my favourite Hens, which had lost nearly all its feathers, (being in full moult,) in a sad way. It appeared as if it had got a wry neck, and was *tipsy*, as it kept falling down, and neither the Cock nor any of the other Hens would go near it. I examined it, and found there was nothing in its crop, and it was very thin. I immediately gave it one grain of calomel in a small bread-piil, and three or four hours after-

wards I gave it fifteen grains of jalap, and, as it was evidently better the next day, I repeated the jalap pill for four successive nights, and it now appears quite well and feeds heartily. After the first dose of jalap its droppings were green and highly offensive. I mention all this, as I have never seen a Fowl similarly affected."—*L. B.*

The roup is an affection of the head, from which birds that are really attacked seldom recover, and when recovered, are still more rarely strong afterwards. It is the "pituita" of the Roman writers, which they characterize as "infestissima," most hostile to Poultry. A copious and offensive discharge flows from the nostrils, in bad cases from the eyes also; indeed, the whole head occasionally seems to suppurate. The creature is stupified by suffering, and blinded also by the disorder. All that can be done is to keep it in a warm dry place, to wash the head frequently with warm vinegar and water, to cram the bird with nourishing food when it cannot see to eat, and to protect it from the cruelties of other Fowls. A solution of sulphate of zinc, as an eye-water, is a valuable cleansing application. Rue pills, and decoction of rue, as a tonic, have been administered with apparent benefit. Cleanliness, warmth, dryness, and good feeding, will, in a measure, keep off the evil, but we cannot expect entirely to eradicate it from a race of creatures so far removed from their native country as our Cocks and Hens are. Fowls are seldom affected by the roup before they are at least three quarters grown.

We now produce one or two surgical cases.

"Perhaps it may not be generally known that Fowls are injured by eating hops. I mean the hops that have been used in brewing and thrown aside. I had a Cock of a valuable breed that appeared ill one morning, moping, and scarcely eating any food at all. We tried all the usual remedies without effect, when it occurred to me that the crop was more distended than ordinary, I therefore made an incision, and took

out a vast quantity of these hops, evidently the cause of the disorder. The bird now grew better, and had the crop been relieved earlier, I think would have done well, but it was now too much weakened, and died within a week after."—*H. H.*

Another patient was treated with better success.

"The case of the Silver Hamburgh Hen, which was poisoned and recovered again, stands thus. She was a very errant Hen, and the only one that I could not keep in the proper fowl-yard. Now I had for some time been feeding the Fowls on *soft* food, and one Saturday afternoon I saw the Hen in question reeling about as if she were drunk; presently she put out her legs quite stiff and fell down with scarcely any symptoms of life remaining. I took her up and felt her crop, when I found she had been eating *hard* food. It then occurred to me that she must have been poisoned by corn laid by my neighbour to destroy the sparrows; which afterwards proved true. Having a great partiality to that breed of Fowl, and moreover the Hen being a gift from you, I felt great reluctance to lose her; and finding there was no chance of saving her but by rough means, I resolved to open her crop, which I did by making an incision of about three-fourths of an inch, or an inch long, with my penknife, and emptied her crop of as much as it could possibly hold of wheat poisoned with nux vomica. I then poured tepid water into her mouth, and rinced her out well that way, letting it run out of her crop: after which I carefully sewed her crop up, and gave her three antibilious pills, not having any jalap in the house. It may be remarked by the way, that a Hen can apparently take as much jalap or pills, without inconvenience, as a man. Between hope and despair, I put her at night into a warm place, and left her bread and milk for her supper. Next morning, when I went to see her, I found her as lively as possible: she made her escape from me at once, and was immediately joined by her husband. She had laid an egg during the night, and always

afterwards was as good a layer as any other Hen. But although I could not myself find any fault with my execution of the above surgical operation, the Hens her companions did, and were so anxious to unlace her boddice, and otherwise ill-treat her, that I was obliged to keep her away from them. Some weeks after the operation, the cotton with which I sewed her up came away from her; but before that time she lived with the rest, and never, except on the day she took the poison, showed any symptoms of illness. She is at present alive and well, and yclept Susannah."—*G. P. S.*

The gapes is an inflammation of the respiratory organs, causing Chickens to gasp for breath, and generally proving fatal. Various forms and degrees of inflammation of the lungs, accompanied by fever, are the great scourge of the young of gallinaceous birds. Some attribute the fever to their being overpowered by too much heat, but I cannot believe such to be the cause of the symptoms. "Some of my Chickens, about ten days old, have died lately of a sort of low fever, growing thinner and thinner in spite of the best attendance and most nourishing food. I cannot find out the cause, except their being too much exposed to the meridian sun, and have obviated it accordingly."—*H. H.* But a wetting in a sudden shower, a run through long grass before the dew is off, an insufficient or irregular supply of food and drink for a single day, are any of them sufficient to produce a similar disappointing result. With Chickens at a more advanced age, one very likely cause is, the Hen being permitted to go to roost, leaving them to take care of themselves during weather that is too cold for them to do without the warmth of their mother, instead of her being confined with them all night in the coop. Or, when the coop has been left abroad in a garden or on a lawn, I have known the family to be attacked by a rat or weasel; the Hen has given the enemy a warm reception, and the little ones have escaped for the time by squatting in strawberry beds, and

behind box edgings, but they have all subsequently died from their night's exposure. If these points of mismanagement are carefully avoided, the malady will rarely make its appearance. Some cruel French experiments are on record, in which Chickens were purposely brought to an incurable state of inflammation, by subjecting them to these baneful influences.

In some cases the presence of parasitic worms in the air-passages is a further aggravation of the inflammatory symptoms. In the elaborate article on Bronchitis in the "Penny Cyclopædia," a figure is given of one of these annoying creatures. It is stated that in quadrupeds the bronchial tubes, and the windpipe, and often the larynx and the fauces, are filled with small worms, forming a kind of coat mixed with the mucus, or connected together in knots of various sizes. The disease is said to be either *produced*, or much *aggravated*, by the presence of these worms and the irritation which they produce. No notice, however, is taken of the worms which sometimes infest Fowls similarly affected.

Having never detected any such worms in Chickens that had died of the gapes, and believing that all the apparent symptoms were to be accounted for by inflammation caused by cold and wet, I began to doubt the existence of the parasites, and stated as much to a gentleman, who replied, "I wish to make you a little less sceptical about the fasciolæ. I used to think as you do, that it was merely inflammation, but a little dissection of the trachea soon showed me the worms adhering to the inner membrane of the windpipe. I have actually found as many as seven or eight in a single individual. If you wish to be convinced, cut off the neck of the next Chick that dies, the larger the better for investigation, and open the trachea gently with your penknife, and your doubts will be set at rest for ever. You are certainly right so far, that no Chick can be cured that is either very young, or very far gone in the disorder. But if not too young, and taken in time, the fasciolæ

can easily be either brought up by the insertion of a wire or feather, or so loosened that the bird can cough them up. The inhalation of tobacco smoke, and other useless and uncertain modes, are ten times more distressing to the Chicken, and do not produce the desired effect.

"Those writers, too, are totally wrong who recommend the attempt to destroy fasciolæ by thrusting down a straw and oil into the windpipe. Pray do not try the method, as I have suffered enough by it; the straw being a bad thing in itself, and the oil, the smallest quantity of which stops respiration, and is therefore used by entomologists to kill insects, still worse. Several Chicks have died under my hands by it. But the proper and only successful way is, adroitly to put a small wire, or feather without any web, except at the farther end, down the windpipe. Give the wire a few turns, and the fasciolæ will come up at the end, or the bird will cough them up. This will, of course, only do for Chicks not less than a fortnight or three weeks old; younger ones will not stand it, and must be left to their fate, unless turpentine will save them. Smoking them in a watering-pot, after Montague's plan, is a doubtful remedy, and much more punishment to the birds.

"This season (1848) the fasciolæ have troubled me a little, and I have extracted some, but my hand is not in for it this year. The disease seems more a slight annoyance and hindrance to their growth, than the fatal sweeping pest it is sometimes. I thought I would try turpentine, and find it, as I expected, perfectly useless. As, however, the fasciolæ are sometimes too small to be brought up, turpentine might be of advantage to dip the end of the wire or feather before putting it down the trachea.

"I do not think fasciolæ are ever engendered by wet; but Chickens that have the disorder, in itself a weakening one, become very much affected by a degree of damp that would not otherwise have injured them. Fasciolæ have raged with

me in the driest and hottest summers. You will observe, in those I sent, that each worm is furnished with a large round head and mouth, like the head of a pin, by which to attach itself to the inner membrane of the trachea. A larger specimen than the one I sent (it is about an inch long) has not yet occurred to me; but I know not how large they may grow. My way of late years has been to confine the Hens very much in large coops, and move them to entirely fresh places every other day, when the Chicks forage for insects. There is one thing with regard to the number of Chickens asserted to be reared by the Chiswick hydro-incubator, which I cannot understand, viz., how so many young birds can be reared together without producing disease, and especially the fasciolæ or gapes. In my own experience (and in some seasons we have killed one hundred and seventy for the table in the course of the year) I am generally obliged to move the broods from yards and houses to open fields, and if a place is selected where no Chicks have ever been reared, so much the better. How Cantelo manages I know not: perhaps his establishment has not yet been many years in the same place. On a farm newly built, and ground reclaimed, I would undertake to breed any number, as this overcrowding (which Mowbray called the 'taint') is the origin of nearly every disorder."—*H. H.* These are useful and practical remarks; but it will be only doing justice to the merits of turpentine, which is a powerful vermifuge, to give the report of another case.

"I have not been unsuccessful—or rather, I should say, a deaf and dumb brother of mine—in raising Fowls this year (1847). My first two trips of Chicks had the 'gapes' very badly. I gave them a little spirit of turpentine in rice, and afterwards put a little salt in the water given to them, and saved sixteen out of twenty. To all the Chicks since hatched, I gave salt in their water, and I have about eighty without any sickness. The reason of success from this treatment is very clear.

The 'gapes' are merely bronchitis. The worms are formed in the stomach (?), and, if you put an ounce of unslaked lime into eight ounces of water, and draw it off, adding to this some salt, and put about a table-spoonful in the water the Chicks drink, the insect is destroyed in the *stomach* with certainty; salt alone, regularly given, will have this effect. When the insect gets from the stomach into the windpipe, there is a difficulty. But spirits of turpentine are absorbed into the lungs, and the breath discharges part of the spirits through the windpipe, and thus also destroys the worm. The common works on the treatment of Chicks when ill of the 'gapes' are full of irrational matter and perfect nonsense."—*T. F.*

It may be observed that, if the worms do get from the stomach into the windpipe, it must be by travelling up the gullet, entering the mouth, and then passing down the windpipe; that though salt does destroy intestinal worms, it must be administered cautiously to Chickens, lest we poison the patient, as well as the parasites; and that the mere vapour of turpentine will have little effect upon worms that are deeply imbedded in mucus.

We have now to notice another disgusting affliction to which Fowls are liable, and which it would be more agreeable to pass by altogether.

"Some time ago I had a beautiful brood of Black Spanish Chickens, and the day after they were hatched I happened to take one in my hand, and was much struck by observing on the top of its poll five or six large full-grown lice, evidently caught from the mother. I then examined the whole brood, and found them all similarly affected. Knowing that they would not thrive until I had dislodged or destroyed the enemy, the next day I attempted to pick them out; but I found that, having only been left one night, the whole poll was covered with nits, and I could not get rid of them from their hanging so tenaciously to the down. I procured some white precipitate

powder, and, with a small camel-hair pencil, powdered them over. On examining them the next day, I found the parasites had all disappeared, nor could I detect one in their after growth. They grew and thrived so remarkably afterwards, that I was convinced this was a valuable discovery, and have ever since treated all my broods the same, and have never lost one from sickness. All Hens are affected with these parasites, and as they do not dust themselves so frequently during the time of incubation, they are more liable to them. I have ascertained from observation, that as soon as the Chickens are hatched, these pests leave the parent for the young, and if they are not destroyed, they weaken the Chicken so much, that, if any complaint comes on, the poor little thing has not strength to contend with it. The best time to apply the precipitate is when they are two or three days old, and at night after they are gone to roost; but the Hens must not be touched with it; as, in pluming her feathers she draws them through her beak, and the precipitate being a strong poison, would no doubt prove fatal to her. In fact, there is no occasion for it; as I could never detect them in *her;* they had no doubt left her for the young. A very small quantity should be used; as one pennyworth, purchased at a chemist's, is sufficient for several broods."—*L. B.*

A slight application of spirit of turpentine and water answers the same purpose, and may be preferred by many persons who have a natural dislike to the use of poison. For, where poisons are admitted at all, there is no guessing what may be the end of them, and the relief of one creature from parasites by these means, may cause the death of another. For instance, after a sheep-dipping, a gentleman lost a lot of valuable American Turkeys; they had devoured the poisoned maggots, ticks, &c., that dropped from the sheep, and were themselves poisoned by them. This is a warning *never to allow sheep-dippings to take*

place within the range of poultry, all of which, except Geese, would be liable to the same fate.

There are some startling facts on the subject of parasitic insects, to be found in the "Monographia Anoplurorum Britanniæ," by Mr. Henry Denny, Curator to the Leeds Philosophical Society, a work which, although with a dog-latin title, that has doubtless limited its circulation, is written in such plain and truthful English, as to make the flesh creep on one's bones. It is not easy to enjoy uninterrupted slumber the night after reading Mr. Denny's Monograph.

"The author has had to contend with repeated rebukes from his friends for entering upon the illustration of a tribe of insects whose very name was sufficient to create feelings of disgust. '*Why not take up some more interesting or popular department of Entomology?*' has been the frequent remark made to him. He considered, however, that if he wished to render any service to science, he must not consult popular taste or ephemeral fashion, but must take a page from that part of the great Book of Nature less generally read, and consequently less understood and appreciated, by the world at large."

The number and variety of species given is frightful; some of those which infest Poultry are:—

"*Goniocotes hologaster* (Louse of the Domestic Fowl).

"*Goniodes falcicornis* (Louse of the Peacock).—This beautiful (!) parasite is common upon the Peacock, and may be found—after the death of the bird—congregated in numbers about the base of the beak and crown of the head. During the year 1827, three or four specimens of *Pavo cristatus* having passed through my hands, upon each of which I observed, for the first time, several examples of the large and well-marked parasite of this bird, the *Goniodes falcicornis*, I was induced to examine whatever other species of birds, &c., might come in my way, to ascertain whether great diversity in size or appearance existed between the parasites of different species or

genera. This I soon found to be so considerable, that I resolved upon forming a collection, and ascertaining what was written upon the parasitic tribes.

"*Goniodes stylifer* (Louse of the Turkey).—Common upon the Turkey, frequenting the head, neck, and breast: a very beautiful species. The males of this and all the other species of *Goniodes* use the first and third joints of the antennæ with great facility, acting the part of a finger and thumb.

"*Goniodes dissimilis* (Louse of the Domestic Fowl).—I suspect this species is of rare occurrence.

"*Lipeurus variabilis* (Louse of the Domestic Fowl).—Common on the Domestic Fowl, preferring the primary and secondary feathers of the wings, among the webs of which they move with great celerity.

"*Lipeurus polytrapezius* (Louse of the Turkey).—A common parasite upon the Turkey. Their mode of progression is rather singular, as well as rapid. They slide, as it were sideways, extremely quick from one side of the fibre of a feather to the other, and move equally well in a forward or retrogade direction, which, together with their flat polished bodies, renders them extremely difficult to catch or hold. I have observed that where two or more genera infest one bird, they have each their favourite localities; for while the *Goniodes stylifer* will be found on the breast and neck of the bird, the *Lipeurus polytrapezius* will be congregated in numbers on the webs and shafts of the primary wing feathers.

"*Menopon pallidum* (Louse of the Domestic Fowl).—Found in great abundance in Poultry, running over the hands of those who are plucking Fowls, and difficult to brush off, from the smoothness of their bodies." Those who are desirous of fuller information should consult the work itself.

It may be suggested that the discovery by the microscope of fossil parasites, might determine the species of doubtful extinct birds and animals, by the same sort of reasoning as the

order of fossiliferous strata is decided by the organic remains found in them.

But what a contrast is here displayed! The glittering argus-eyed plumage of the Peacock, undermined by lice! Ach! Degrading! We are but smoking flax. The Pope, at his coronation, is reminded, by the outward visible sign of extinguished flame, and by words, "Sancte Pater, sic transit gloria mundi"—"Holy Father, thus passes away the glory of earthly things." The Prelate, encased with gold and gems, but wearing beneath his outward show sackcloth, and perhaps vermin, voluntarily, and the Peacock, with his unrivalled plumes, irritated by these odious defilers, involuntarily, that in life move among the webs hastily, and after death "attract notice" about the seat of beauty and honour, the head and crest—are the same in kind—apparent magnificence balanced by unseen evil. Like unto them, also, are the great and powerful of this world, devoured by heart-eating cares and irremediable disappointments. What a natural and almost true superstition was that of the old Greek Nemesis! The returned ring of Polycrates is the fate of few mortals; nor to be wished for. The boast, "Soul, thou hast much goods, take thine ease," is apt to be followed by heavy retribution.

"See how glorious, how splendid, how secure we are! What can touch us, or ruffle our luxurious calm? Why need we humble ourselves, and go softly, and think of our less happy brethren now and then? Nemesis is an exploded phantom, self-denial a superstitious folly." Yes: "all men think all men mortal—but themselves." They who have felt no loss, no sorrow, have need to be greatly fearful! The black threads which the Sisters weave into our web of life, are healthful as warnings, merciful as threatenings, needful as preservatives. A world was not saved without a sufficient sacrifice. How shall frail and paltry individuals swim on in everlasting sunshine? The check in careering prosperity, the

lice in the enameled panoply, remind us what we are in the sight of The Ever-present.

"And upon a set day, Herod, arrayed in royal apparel, sat upon his throne, and made an oration unto them. And the people gave a shout, saying, It is the voice of a god, and not of a man. And immediately the angel of the Lord smote him, because he gave not God the glory: and he was eaten up of worms, and gave up the ghost."

Let us be thankful for sorrows, humble and loving in good fortune; for it is of no use to sit in the sun, reflecting his splendour by our trappings, and to be, like Herod, stricken of worms at last.

The following letter, received by the Editor, from an esteemed correspondent, will, I am sure, be read with great interest by the Poultry breeder and fancier. If its suggestions be carried out to the letter, they will never have occasion to complain of vermin. The sulphur of which he speaks has a very decided tendency to the skin, and destroys the vermin on poultry, as it is the parasite constituting the disease vulgarly known as "*the itch.*"

Northumberland, Oct. 15, 1850.

My dear Sir,—I have several tolerably good reasons for not replying to you sooner—absence, business, felon on the finger, &c.

You wish me to give my views on "Henology," and particularly in relation to poultry-houses. On this latter subject I do not feel prepared, either by practice or in theory, to give satisfactory or reliable information.

In the country and in villages, where space is little worth, and there is not much necessity for restriction, Fowls are generally allowed the "largest amount of liberty." And this, with reasonable limitations, in connection with plentiful and

various food, is indispensable to perfect health, rapid growth, and a profitable yield of eggs. It is not possible to compensate a laying Hen for the want of liberty. Coop her up—give her grain, meat, vegetables, fruit, water, gravel, lime, every thing that may be thought conducive to health and comfort, and though her yield of eggs will greatly exceed that of a hen confined and kept in an ordinary way, it will by no means compare with that of a Hen in a state of liberty, equally well kept, one that breathes the wholesome, free, circulating air, and picks grass, gravel, worms, and insects, to suit herself. The want of range has almost as much effect on the comparative barrenness of a Hen *in winter*, as the cold. Liberty and *varied* abundance are the two greatest essentials for poultry, old and young, to promote health, growth, beauty, and fertility.

Lice have very justly been considered the greatest drawback to the success and pleasure of the poultry-fancier, and nothing short of unremitting vigilance will exterminate them, and keep them exterminated. To attain this, whitewash *frequently* all the parts adjacent to the roosting poles, take down these, and run them slowly through a fire made of wood shavings, dry weeds, or other light waste combustibles, until every adhering louse and *lousette* is demolished. Flowers of sulphur (which costs five or six cents a pound) given to Fowls with Indian meal, is highly recommended; about one ounce to a chicken, to be given in as short a time as they can be induced to eat it. This to be repeated, at discretion. I have tried these combined remedies, apparently with good result. What share the sulphur had in it, I cannot positively say. It certainly never injured the chickens, and very probably improved their general health. In warm and moderate weather, the best place for poultry to roost is in the open air, where *sunshine*, and *rain*, and *wind* tend equally to the destruction of parasites.

Hens should be made to lay in *portable* boxes, that may be

carried out occasionally, and the hay or straw composing the nest *burnt in the box*. In this way, thousands of vermin may be destroyed. This is particularly beneficial, a day or two before a Hen brings out her brood. Remove the eggs with great care into a box freshly burnt out, and put it in the place of the old one. Then immediately burn out the one removed. As soon as the chickens are hatched, put them into a well lined basket, and if the weather be cool, place them near the fire. When all are out of the shell, give the Hen a thorough greasing under the wings and thighs, on the breast, and, most particularly, in the hollow between the rump and vent. In this last spot, lice are sometimes found in a crawling mass six or eight deep. Then the chicks may be safely returned to the mother, and if compelled to roost in a *fresh* clean place, they will keep clear of lice for weeks, and grow twice as fast as lousy ones.

If perchance, through neglect or accident, they become verminous, grease them on the parts named above, and on the head and neck. This is the only effectual, certain mode. By continued, systematic warfare, the "nasty critters" may be kept down. If they are *not* kept down, the chickens will be. I have known young Fowls so afflicted, three months old, no larger than clean healthy Chicks of six weeks, running about with their heads and necks as featherless and more naked than the day they were hatched.

Before leaving this lousy subject, let me amuse you with an incident of experimental philosophy. Last year, I thought I had discovered the grand secret of effectual louse-murder. I had six large Hens, sitting on about ninety choice eggs, game, creole, and booby. My early chickens had been much injured by vermin, and I resolved to give these summer Chicks a better chance. I greased every brooding Hen from head to tail, and patiently waited the result. When the twenty days of each expectant incubatrix had expired, I looked under her

in vain for the sundered shells. No chick, nor chirp, nor sign of life. In a couple of days I opened the eggs, and lo! each little embryo Cock and Hen appeared "in statu quo" it was when the grease was communicated from the Hen to the egg, except that it was *defunct;*—the very hour the pores of the shells were closed by the grease, the chickens "went dead."

I mention this incident, inasmuch as Dr. Bennett, in his Poultry Book, recommends eggs for hatching to be preserved in grease. Try it, and I'll wager two Chittagong roosters against a Bantam, *you don't get a chicken.*

You suggest six compartments as requisite to a perfect coop; among the rest, one for laying, and one for sitting. This is certainly desirable, if easily effected. But the trouble is, a hen will generally sit where she has laid, and *nowhere else.* In some cases they can be moved, but not often with success.

In connection with the subject of coops, I would mention, what perhaps everybody knows who pretends to know any thing about poultry: they should always be built fronting the south or south-east, and furnished on that side with several glazed windows, to give them, in winter, sun without cold.

Yours, very truly,

DAVID TAGGART.

There is no doubt in my mind, from considerable experience, that almost any kind of grease or unctuous matter is certain death to the vermin of our domestic poultry; and although, if used properly, it will remove all vermin, yet, in the case of very young chicks, it should only be used in a warm sunny day, and they should be put into a coop with the mother, and the coop darkened for an hour or two, and every thing made quiet, that they may get a good rest and nap after the fatigue occasioned by greasing them. They should be handled with great care, and greased thoroughly; the Hen also. After resting, they may be permitted to come out and bask in the sun, and in a few days will look sprightly enough.

CHAPTER III.

ON EGGS: THEIR COLOUR, FORM, AND SEX.

"Do you see that the resemblance of one egg with another has passed into a proverb? Yet, granting this to be true, I have heard that there were in Delos many people who used to keep a number of Hens for the sake of profit; and when they inspected their Eggs, were in the habit of pronouncing which Hen had laid that particular one."—CICERO, II. *Academicarum.*

THE Deliaci, it is clear, knew something about "Eyes and no Eyes, or the Art of Seeing;" for Eggs are popularly supposed to be so much alike, that what can be said about one Egg is thought applicable to every other laid by the same species of bird—the common Hen for example; but there is nearly as much distinguishable difference between the units in every egg-basket which is carried to market, as there is between the faces in a crowd of men, or the hounds in a pack. To every Hen belongs an individual peculiarity in the form, colour, and size of the Egg she lays, which never changes during her whole lifetime, so long as she remains in health, and which is as well known to those who are in the habit of taking her produce, as the handwriting of their nearest acquaintance. Some Hens lay smooth, cream-coloured Eggs, others rough, chalky, granulated ones: there is the buff, the snow-white, the spherical, the oval, the pear-shaped, and the emphatically Egg-shaped Egg. A farmer's wife who interests herself in the matter, will tell you with precision, in looking over her stores, "this Egg was laid by such a Hen"—a favourite, perhaps—"this one by

such another;" and it would be possible that she should go on so throughout the whole flock of poultry. Of course, the greater the number kept, the greater becomes the difficulty in learning the precise marks of each. From a basket of thirty Eggs, gathered in a farm-yard as they came to hand, eleven, laid by one or two Hens, whose race we were desirous to continue, were selected in about two minutes by the friend who supplied us with them. If four dozen Eggs, laid by no more than four different Hens (especially if of different breeds), were put at random on a table, the chances are that it would be as easy to sort them as the four suits of a pack of cards.

This fact might give rise to curious doubts in a court of justice. When petty pilfering has been suspected about a farm, Eggs have been minutely marked and returned to the places whence they were taken; and the parties, in whose possession they were subsequently found, have been convicted of the theft. And this—if we shut our eyes to the crime (for it *is* a crime) of laying traps and throwing temptation in the way of the weak—was satisfactory proof. But there are some cases in which the identity of an Egg could be sworn to without any marking whatsoever; where the person robbed could affirm positively, "this Egg is my property, laid by such a Hen,"—could pick it out from a quantity laid by other Hens, and could produce other Eggs to pattern it in proof of his assertion. Few town-bred juries would believe this; and yet it is quite as possible as that a north-country shepherd should swear to the countenance of a single sheep stolen from a flock of several hundreds—after the death of the animal too—which has been done.

A more practical and agreeable application of our remarks may be made in the choice of Eggs for hatching. It has been copied and re-copied from quarto to octavo, through duodecimo and pamphlet, that small round Eggs produce female, and long pointed ones male chicks. Now I assert that the Hen who

lays one round Egg, will continue to lay all her Eggs round; and the Hen that lays one oblong, will lay all oblong. Consequently, one Hen would be the perpetual mother of Cocks, another must remain the perpetual producer of Pullets; which is absurd, as daily experience proves. Every dairy-maid knows that when a Hen steals a nest and hatches her own Eggs only, the brood which she brings home contains a fair proportion of either sex. I know well that if any of the said Hen's female acquaintance spy out her secret hoard, they will set other bipeds a good example by adding to, instead of substracting from, the property of her neighbour. But chance additions are not sufficient to account for the mixture of Cocks and Hens in self-set broods, supposing the theory to be correct, that the sex of the future chick is denoted by the form of the Egg.

Here is an experiment in point. An old lady, whose fowls were all white, gave me a small globular Egg, as round as a ball; it was added to a clutch of Speckled Dorkings. The result was the due number of Dorkings, and one white cockerel, which we kept till he began to crow: it ought to have been a pullet, unless the compositor's fingers have been busy in reprinting one error at least.

Another supposed test is the position of the air-bag at the blunt end of the shell. We are told that, "if it be a little on one side it will produce a Hen; if this vacuity be exactly in the centre, it will produce a Cock." But, take a basket of Eggs, examine them as directed, by holding them between your eye and a candle, and you will find very few indeed in which you can say that the air-bubble is exactly concentrical with the axis of the Egg. A Cock ought thus to be, like Ovid's Black Swan, a rare bird. But, in many broods, the cockerels bear a proportion of at least one-third, sometimes two-thirds; especially in those hatched during winter or in unfavourable seasons; the immediate cause being, doubtless, that the Eggs producing the robuster sex possess a stronger vitality;

the more remote cause being the same wise law of Providence, through which, in the human race, more males are born into the world than females, to meet the wear and tear of war, labour, and accident.

"Neither," as Mr. Bissell shrewdly suggests, "are these two tests, viz., the shape of the Egg and the position of the air-bubble, consistent with each other. Since I have been an experimenter upon that subject," he says, "and my experience is corroborative of all that you have said, I will just give you the facts as they occurred in one or two instances out of a great number of similar ones.

"The fact of the situation of the air-bag being as varied in a round Egg as in an oval or long one, seems to me, of itself, to be fatal to the test by which we are told to distinguish the sex of future chickens; for if the round Egg produces a pullet, and an Egg with the air-bag a little on one side produces the same, it argues that all round Eggs should have the air-bag in that position (the same argument applies to the long or oval Egg), or one test contradicts the other. That such is not the case, and that the position of the air-bag differs as much in a long Egg as it does in a round, I need hardly assert, for the doubt may be decided by the examination of a few Eggs by the light of a candle. In hatching my Spanish Fowls, I was careful to examine, and set none but round Eggs, with the air-bag on one side, and if there is any truth in either principle, I ought to have had all pullets; but this, instead, is the result:— From thirteen Eggs selected as above stated, were hatched, in June, ten chickens, which proved to be four cocks, six pullets; from eleven Eggs, set early in July, were produced six chickens, viz., three cocks and three pullets; from thirteen Eggs, set in July, were produced eight chickens, viz., five cocks and three pullets; so that you have about equal numbers of either sex from Eggs which were as like each other in form, size, and

position of air-bag as it is possible for Eggs to be like each other. So much for the over wise!"

In short, the Bubble Theory, as far as I have seen, is properly described by its name; and there are, I believe, no known means of determining beforehand the sex of fowls, except, perhaps, that *Cocks may be more likely to issue from large Eggs, and Hens from small ones.* Knowing, however, that the Egg of each Hen may be recognised, we have thus the means of propagating from those parents whose race we deem most desirable to continue.

A correspondent of the Agricultural Gazette has recorded another experiment:—"During the last summer I wanted to raise a stock of poultry from a favourite Hen and Cock. They were of the black-breasted red Game breed. The Cock was purely bred, but the Hen was a little crossed. The Eggs she laid were of a deep buff colour, and as she was the only Hen I had which laid yellow Eggs, they were easily collected. When I had twenty-six Eggs, I put thirteen of the largest under a brood Hen to be hatched; one Egg got broken, the other twelve had chickens in them: one, however, died in the shell, and so the number was reduced to eleven. Of these one died before I could ascertain its sex; of the ten remaining, eight were cocks and two were pullets. The thirteen smaller Eggs, I also put under a broody Hen, and she hatched me ten chickens. Of these eight were pullets and two were Cocks. There is no difference in the shape of the Eggs laid by the same Hen; in size they vary but little. I observe this peculiarity, that although the Hen has yellow legs and the Cock black, yet throughout four broods which I have had from the same Hen and Cock this summer, every yellow-legged chicken has proved a Cock, and every black-legged one a pullet." Sir Thomas Brown was quite right: "that the sex is discernible from the figure of Eggs, or that Cocks or Hens proceed from

long or round ones, as many contend, experiment will easily frustrate."

Horace, Columella, and Pliny had the same notions respecting the shape of Eggs as are current now, but they applied them to eating, rather than hatching purposes. The long eggs were better tasted, according to them, *because* they contained Cocks: "Those which are laid round, produce a female; the rest a male."—*Pliny*, lib. x., c. 74.

CHAPTER IV.

EGGS: THEIR PRESERVATION FOR CULINARY PURPOSES.

I HAVE taken some pains to ascertain the best means of preserving Eggs. I have visited country-produce dealers, freely exchanged views with them on the subject, and the conclusion in every case was that *lime-water* ('tis not very material whether salt be added or not) is the only means of preserving Eggs that will *remunerate for the trouble.* I have seen hogsheads of Eggs thus preserved in cellars from midsummer to the following spring, and preserved very well too. The water must be kept as highly charged with lime as it will bear.

Mr. Dixon, quoting Mr. Cobbett, says, "Preserved Eggs are things to run *from*, not after." Perhaps so, perhaps not, as the case may be. At any rate, many articles of cookery, which cannot be made without Eggs, are not things to run from; and, therefore, preserved Eggs must be had, unless you choose to disappoint the little folks of their Christmas plum-pudding. The greater part of the Eggs brought to market in Norfolk during winter, are certainly displeasing enough, quite uneatable *as Eggs*, and only *not offensive* to the smell. They are saved from putrefaction by immersion in lime-water, to which salt is added by some housewives. When wanted, they are fished out of the tub, wiped, rubbed with a little silver-sand to give a fresh-looking roughness to the shell, and sold at the rate of eight for a shilling, if the season happen to be severe

Cooks say they answer *their* purpose: but it is assuredly worth while to try for something better.

Reaumur's experiments with varnish, so well known through the industry of compilers, appear to have succeeded. But varnished Eggs would be both too troublesome and too expensive to be the subject of more than mere experiment. The best way of obtaining a practical result is to inquire what method is pursued by any set of people to whom preserved Eggs are a matter of necessity, not luxury. Now there exists a tribe of men, British subjects, whose daily food, whose staff of life, is Fowls and Eggs—both preserved during great part of the year. In maps of the Ancient World, the *orbis veteribus notus*, we see nations marked down as Ichthyophagi, Fish-eaters, Lotophagi, Lotus-eaters; and a new race, peculiar to the present day, appears to be springing up, the Mycophagi, or Fungus-eaters, who will be wise if they listen to the warnings of Dr. Lindley. Had the people of St. Kilda been known in those days, they would have been styled Ornithophagi, Bird-eaters, and Oophagi, Egg-eaters. Instead of their keeping Fowls, the Fowls keep them. Martin, in his voyage to the Island of St. Kilda, (London MDCXCVIII.) says, "I remember the allowance of each Man *per diem*, besides a Barley Cake, was eighteen of the Eggs laid by the Fowl called by them *Lavy*,* and a greater number of the lesser Eggs, as they differ in proportion; the largest of these Eggs is near in bigness to that of a Goose, the rest of the Eggs gradually of a lesser Size. We had the curiosity, after Three Weeks' residence, to make a Calcule of the number of Eggs bestowed upon those of our Boat,

* Subsequently he says, "The *Lavy*, so called by the inhabitants of St. *Kilda;* by the Welch, a Guillem; it comes near to the bigness of a Duck; its head, upper-side of the Neck all downwards, of a dark-Brown, and White Breast, the Bill strait and sharp pointed; the upper Chop hangs over the lower; its Feet and Claws are Black."

and the *Stewart's Birlin*, or *Galley*—the whole amounted to Sixteen thousand Eggs; and, without all doubt, the Inhabitants, who were triple our Number, consumed many more Eggs and Fowls than we could. From this it is easy to imagine, that a vast number of Fowls must resort here all Summer, which is yet the more probable, if it be considered that every Fowl lays but one Egg at a time, if allowed to hatch."—P. 12. Subsequently (p. 66) he tells us, "The Eggs are found to be of an Astringent and Windy Quality to Strangers, but, it seems, are not so to the Inhabitants, who were used to Eat them from the Nest (or cradle?). Our Men, upon their arrival Eating greedily of them, became Costive and Feverish," &c. * * * (Then follows the remedy, which seems to have astonished the natives.)

But this diet is to be had fresh only during a short part of the summer, and provision must be made to prevent famine in the winter, when it is too stormy to fish; therefore, says Martin, "They preserve their Eggs commonly in their Stone-Pyramids, scattering the burnt ashes of Turf under and about them, to defend them from the Air, dryness being their only Preservative, and moisture their Consumption; they preserve them, Six, Seven, or Eight Months, as above said; and then they become Appetizing (?)* and Loosening, especially those that begin to turn." Later travellers inform us that the same system still continues to be practised.

The shells of these sea-birds' Eggs are more fragile than those of the common Hen, which circumstance must cause them to be more difficult to preserve; and turf-ashes clearly make a sweeter and more effectual packing than lime-water, or the means usually adopted in England. But they are only to be had in certain localities. Wood-ashes are too light, and cinder-

* Does this mean heavy on the chest, from the Italian *a*, and *petto*, the chest?

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food will keep a certain quantity of Hens in health, without being sufficient to cause them to lay. Increase the quantity of food, or decrease the number of Hens, and you have a superabundance, which produces Eggs. But as the rejected scraps of every family, and the refuse odds and ends of every farming premises, are tolerably steady in their amount, taking one month with another, it is better to have a small number of Hens, leaving them to forage from the supply which is constantly open to them, than to trust to extra hand-feeding, which may be often neglected or shortened.

A warm and dry night's lodging is good, but not so confinement during the day, even in the best of poultry-houses. The Hens will always keep themselves out of the wet, and no care can compensate for the exercise and variety of food afforded them by a state of liberty.

There is nothing so instructive as a case, whether in law, physic, or poultry-keeping. During the hard winter of '46–'47, our own Hens not laying, we obtained a plentiful supply fresh laid from a neighbouring farm. The Hens were common dung-hill mongrels, the accommodation for them not so good as our own. But the Eggs were the perquisite of the farmer's wife—her pin-money by a mutual understanding—while the corn went into the pocket of the farmer. The lady consequently permitted her pullets, without the least remonstrance, to make a large hole in a barley-stack, pull out the straws one by one, and, when they had tasted an ear, if they did not approve its flavour, try another. Whether the man grumbled, and the wife pouted and carried her point, is not for us to tell, if we knew. It is certain that the price we were charged for the Eggs did not pay for the damage done by their production.

A paragraph from the Perth *Courier* ran the round of the papers, and obtained considerable attention at the time (Dec., 1847) from inexperienced poultry-keepers :—"Hens will lay Eggs perpetually, if treated in the following manner. Keep

no Roosters"—what an elegant word!—"give the Hens fresh meat, chopped up like sausage-meat, once a day, a very small portion, say half an ounce a day to each Hen during the winter, or from the time insects disappear in the fall, till they appear again in spring. Never allow any Eggs to remain in the nest for what is called Nest-eggs. When the Roosters do not run with the Hens, and no Nest-eggs are left in the nest, the Hens will not cease laying after the production of twelve or fifteen Eggs, as they always do when Roosters and Nest-eggs are allowed, but continue laying perpetually. My Hens lay all winter, and each from seventy to one hundred Eggs in succession. If the above plan were generally followed, Eggs would be just as plentiful in winter as in summer. The only reason why Hens do not lay in winter as freely as in summer, is the want of animal food, which they get in summer in the form of insects. I have for several winters reduced my theory into practice, and proved its entire correctness."

No allowance is here made for the different laying and incubating capabilities of different breeds of Fowls; and the reader will be wise in hesitating before he consents to banish Cocks from his poultry-yard and Nest-eggs from his hen-house. The act of laying is not voluntary on the part of a Hen, but is dependent upon her age, constitution, and diet. If she be young, healthy, and well-fed, lay she must; if she be aged and half-starved, lay she cannot. All that is left to her own choice is, where she shall deposit her Egg, and she is sometimes so completely taken by surprise, as not to have her own way even in that. The poultry-keeper, therefore, has only to decide which is the more convenient; that his Hens should lay here and there, as it may happen, about his premises, or in certain determinate places, indicated to the Hens by Nest-eggs. It is quite a mistake to suppose that the presence of a Nest-egg causes a Hen to sit earlier than she otherwise would. The sight of twenty Nest-eggs will not bring on the hatching fever;

and when it does come, the Hen will take to the empty nest, if there be nothing else for her to incubate. Any one whose Hens have from accident been deprived of a male companion, will agree with me in saying that they have not done so well till the loss has been supplied. During the interregnum, matters get all wrong. There is nobody to stop their mutual bickerings, and inspire an emulation to please and be pleased. The poor deserted creatures wander about dispirited, like soldiers without a general. It belongs to their very nature to be controlled and marshalled by one of the stronger sex, who is a kind, though a strict master, and a considerate, though stern disciplinarian. It does not appear what should make Hens lay better under such forlorn circumstances as are recommended in the Perth paragraph. They will sit just the same, when the fit seizes them, and so will Ducks; as may be seen amongst those cottagers who, to save the expense of barley, keep two or three Hens or Ducks only, and procure from a neighbour a sitting of Eggs, as they want them. It has been stated by Reaumur, who is a high authority, that clear or unfertile Eggs will keep good longer than those that would be productive; but it is doubtful whether the difference is so great as to make it worth while keeping the Hens in a melancholy widowhood on this account. The most natural and least troublesome way of having a winter supply of Eggs, is to procure pullets hatched early in the previous spring, and to give them all they can eat of the best barley, or, if expense be disregarded, of the finest wheat. But all people are not so nice about their Eggs, particularly during a long sea-voyage.* For example, "It was upon one of the islands that I went on shore, and I found there such a number of birds, that when they rose they literally

* "Much depends on taste in matters of this sort; and we once had a Londoner on a visit, who 'heaved the gorge' at the milk of new-laid Eggs, but ate Scotch Eggs with much satisfaction."—J. S. W.

darkened the sky, and we could not walk a step without treading upon their Eggs. As they kept hovering over our heads at a little distance, the men knocked many of them down with stones and sticks, and carried off several hundreds of their Eggs. After some time I left the island and landed upon the main, where our men dressed and eat their Eggs, *though there were young birds in most of them*"—*Commodore Byron's Voyage round the World.*

CHAPTER V.

EGGS: THEIR PRESERVATION FOR INCUBATION.

Before quoting Mr. Dixon in continuation of this subject, I will briefly mention the method of preservation I have used for some time with great success. I put the Eggs on their points in a box in a *cool dry place;* the temperature about 60° or 65°. I cover the bottom of the box with *wheat bran,* then put in a layer of Eggs, and cover them with bran also, and so on while filling the box. The Eggs are kept *dry, cool,* and, being covered, the *evaporation* of their contents is *effectually prevented;* at the end of six weeks, or even two months, the Eggs are as *full* as when they were laid, and almost as certain to hatch out.

"Eggs for hatching," says Mr. Dixon, should be as fresh as possible; if laid the very same day, so much the better. This is not always possible when a particular stock is required to be increased; but if a numerous and healthy brood is all that is wanted, the most recent Eggs should be selected. Some books tell us that Eggs to be hatched should not be more than a fortnight, others say not more than a month old. It is difficult to fix the exact term during which the vitality of an Egg remains unextinguished; it undoubtedly varies from the very first according to the vigour of the parents of the inclosed germ, and fades away gradually till the final moment of non-existence. But long before that moment, the

principle of life becomes so feeble as to be almost unavailable for practical purposes. The chicks in stale Eggs have not sufficient strength to extricate themselves from the shell; if assisted, the yolk is found to be only partially absorbed into the abdomen, or not at all; they are too faint to stand, the muscles of the neck are unable to lift their heads, much less to peck; and although they may sometimes be saved by extreme care, their usual fate is to be trampled to death by their mother, if they do not expire almost as soon as they begin to draw their breath. Thick-shelled Eggs, like those of Geese, Guinea-fowl, &c., will retain life longer than thin-shelled ones, as those of Hens and Ducks. Those who are anxious to secure a valuable variety, one chicken of which is worth a whole brood of ordinary sorts, will run all risks; after seven or eight weeks their chance is not utterly gone. Some of the chicks will be found dead in the shell, but those that are hatched, if they survive the first eight-and-forty hours —the great difficulty—are not afterwards more weakly or troublesome than others. In the mean while, air should be excluded from the Egg as much as possible: it is best to set them on end, and not to suffer them to lie and roll on the side. Dry sand or hard-wood sawdust (not deal, on account of the turpentine) is the best packing. But when choice Eggs are expected, it is more prudent to have a Hen waiting for them than to let them wait for her. A good sitter may be amused for two or three weeks with a few addle-eggs, and so be ready to take charge of those of value immediately upon their arrival.

Eggs sent any distance to be hatched, should be tightly inclosed in a wooden box, and arranged so as neither to touch each other, nor the sides of the box. An oyster-barrel answers excellently for a small number. Mr. Cantelo, in his pamphlet, has recommended oats as a packing, and no doubt they form an excellent vehicle, taking little time to pack, filling all inter-

stices, and moreover being useful at the journey's end. The Eggs should be shaken as little as possible, for fear of rupturing the ligaments by which the yolk is suspended in the centre of the Egg, and mixing the two strata of albumen surrounding it and letting the yolk loose. Nor should they be suffered to come in contact with any greasy substance that would close the pores of the shell, so as to exclude air from the chick. But my own experience of Eggs for hatching received from any long distance, is so utterly discouraging, as to forbid all future attempts, unless the parcel can be carefully brought by hand. However well packed, they get so recklessly knocked about by the superabundant strength and activity of the railway porters, who would handle a box of Eggs and a box of tenpenny nails exactly in the same manner, that, at the end of a couple of hundred miles, and after shifting carriages three or four times, the germs of the Eggs are as completely destroyed by the concussion, as if they had been baked or boiled into custards. Mr. Cantelo advises, "should any valuable or rare Egg have a defect in the shell, it may be worth while to gum a piece of paper over the part affected, as it is through the extra-evaporation that it would otherwise fail in hatching." The following case, which has been communicated to me, is a practical commentary. "A Duck's egg was broken at the small end by a careless Hen when within a week of hatching. Perceiving that the inhabitant within was a fine lively fellow, I closed it over well with wax, and returned it to the nest. At the proper time the duckling came out lively enough, and proved the best of the brood." The same gentleman (H. H.) experienced another curious instance of difficulty in hatching. "A young pigeon was unable, for reasons best known to himself, to get more than his head and shoulders out of the egg. In this state he remained for days, the parts not growing, and the old birds still feeding him! I released him afterwards, but he did not do nearly so well then, and soon died."

"After a Hen has sat a week, if you have a thin board with a small orifice in it, place a candle at the back, and hold up each Egg to the point of light; you will see at once whether the Eggs are fertile, when of course the others may be removed, and made use of hard boiled for young chickens. This hint I got from Mr. Cantelo's Exhibition, where the number of Eggs made it a great desideratum: but, in any case, it is much better to remove the bad Eggs."—*W. D. F.*

Now we are on the subject of hatching, we may as well refer to the perplexity to which Poultry-keepers are sometimes subjected, when Hens *will* sit, at seasons of the year at which there is little chance of bringing up Chickens. Some advise the Hen to be soaked in a pail of water cold from the pump: but if they have a mind to kill her, it is more cruel to do so by giving her fever and inflammation of the lungs, than by simply knocking her on the head. A less objectionable remedy, communicated by a gentleman who is not likely to speak unadvisedly, is the following, of which, however, I have no personal experience. "I have known one or two doses of jalap relieve them entirely from a desire to sit; and, in my opinion, it is far better than the cold-water cure. I have known English Fowls lay in three weeks afterwards." But why not let the poor creatures obey their natural propensity? Or, surely, some neighbour would gladly exchange a laying Hen for one that wanted to sit. Others, borrowing an ancient piece of barbarism,* recommend a large feather to be thrust through her nostrils; that she may rush here and there in terror, and give up all thoughts of sitting. The person who

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* "The inclination to hatch is prevented by thrusting a small feather through the nostrils." *Columella*, lib. viii., cap. 5. Pliny more humanely prescribes the same operation as a cure for the roup, "pituita." "A feather thrust through the nostrils, and moved every day:" a seton, in fact. Lib. x., c. 78.

would be capable of such cruelty, would properly walk arm-in-arm with the man who had tied a tin-kettle to his dog's tail. The wisest way is to guide, instead of thwarting, the impulses of nature. Let your good Hen indulge the instinct implanted in her by a wiser Being than you: give her a sitting of Duck's or Goose's Eggs, and, unless the winter be extraordinarily severe, you must be a bungler if you do not rear them by the aid of bread-crumbs, barley-meal, and a kitchen fire. The autumnal laying of the China, and also of the Common Goose, is very valuable for the purpose. It need only be remembered that too much confinement will give your Goslings the cramp. But it is better to take a little pains, than to be guilty of the above-mentioned cruelties, or to let the poor creature spend her vivifying energies on an empty nest. Turkey-hens frequently have this late fit of incubation, and on the Continent are much more used as general hatchers than they are with us. One, which had been supplied with Duck's Eggs, hatched fifteen. As soon as she found out what sort of beings she had introduced into the world, she glanced at them a look of that ineffable scorn, which a Turkey's eye can so well express, strutted slowly away, and never would notice them more. The Ducklings, however, were reared in spite of her airs; the fire-side and their own innate vigour sustaining them under the excusable neglect of their haughty foster-mother. One of mine chose to sit on some of her own Eggs in the middle of a turnip field at the end of October, 1847. This would never do; so we brought her home, and set her upon seven Eggs of the Common Goose in a warm out-house. She hatched six birds, one of which was killed by accident. The remaining five she reared with the greatest affection. A little ordinary care, with a liberal supply of endive, cabbage-leaves, and other garden refuse, and, in time also, of barley, thus furnished us with a welcome lot of early Geese.

However it *is* sometimes inconvenient for townspeople to have Hens wanting to sit unseasonably. Mr. Bissell says, "I have been sadly troubled in this way, and have tried almost every known method of getting them to forsake their nests, when I have not wanted them to sit, but without the least effect, until about two years ago I tried the simple plan of placing them in an aviary for about four or five days at most, and, feeding them but sparingly, when they will, from the commencement of their confinement, gradually leave off clucking, and when they have done so, you may again set them free without the least fear of their wishing to take to the nest again; and, besides getting rid of a great deal of trouble with them, they will in a very short time commence laying again with renewed vigour." Keeping a Hen out in a coop on the cool grass for three or four days and nights has a similar tendency to abate the hatching fever.

One of the most extraordinary feats of hatching on record, is that performed by Pliny's Syracusan drunkard, under whom, as he lay enjoying himself on the ground, some Sicilian wag slipped a sitting of Eggs, which at the proper time became Chickens!

Monstrous and misshapen Eggs are not uncommon. They are to be seen in most collections; and an Oologist of ordinary experience would be less puzzled by them, than by unexpectedly meeting with the Egg of a tortoise. They have given rise to several absurd opinions, the oldest of which is a belief in "Cock's eggs," abortions of very small size, sometimes properly shaped, sometimes shperical, and sometimes contracted in the middle like an hour-glass, with a thick shell and little or no yolk. We had a Hen that laid one every day, till we put a stop to the practice by eating her. Similar *lusus* have also been produced by the thrush, the linnet, the robin, and the plover. Country-people think "Cock's eggs" unlucky, and commonly destroy them when they find them;

the effectual way to have better luck with Eggs would be to destroy the "Cock" that lays such unmarketable articles. Diseased ovaries are the undoubted cause, followed frequently by the assumption of the manners, and even of the plumage of the male. Such a change gives plausibility to the popular notion of Cocks laying Eggs, which is not yet exploded among the rustics. Whether it was an old form of speech or grounded on any vague belief of the sort, Martin, before quoted, speaking of the number of Eggs laid by the Fulmar, uses the masculine gender throughout; thus, "he picks his Food out of the Back of live Whales; they say he uses Sorrel with it, for both are found in his Nest; he lays his Egg ordinarily the First, Second, or Third day of *May;* which is larger than that of a *Solan* Goose Egg, of a White Colour and very Thin, the shell so very tender that it breaks in pieces if the Season proves Rainy; when his Egg is once taken away, he lays no more for that year, as other fowls do," &c., p. 55.

In the days of ignorance, people were now and then thrown into consternation by the appearance of Eggs marked with inscriptions or symbols, in relief, or intaglio. But the evidence of their having been laid in that state is so utterly wanting, and the chemical means of fabricating them so simple, that it is needless in these times to enter further into the matter. Shell-less Eggs may be attributed, partly, to the want of a sufficiency of phosphate of lime in the food of the Hens, and sometimes to over-irritability in the Egg-organs, analogous to that which, in the Mammalia, causes abortion.

Another strange, but unsupported belief, or dream, which I must think originated in a joke, or *cram*, from which imputation the weight of Aristotle's authority does not relieve it,*

* "Some domestic Hens, also, bring forth twice in the day; and some, after having been very prolific, have died in consequence;"—*History of Animals*, Book vi., c. 1,—as they do now. "I am very

in the notion that there are Hens in existence that habitually lay more than one egg a day. One author says, there are Hens wild in Sumatra that lay three Eggs in a day; but he omits to state who watched these wild Hens to and from their nests. Another (Richardson) describing the Cochin China fowl (2d Edition, p. 38) says, "they are prolific Hens; Mr. Nolan's frequently laying two, and, occasionally, three Eggs on the same day, and within a few moments of each other." The statement is confirmed by Irish Arithmetic. "One of the Hens," he continues, "Bessy, exhibited by her Majesty, laid ninety-four Eggs in one hundred and three days,"—not quite three Eggs a day, according to our "calcule." But if this be a fact, there is no limit to the improvement of which these double-barrelled Hens are capable, till, by the aid of forcing and extra diet, they become, like Mr. Perkins's steam gun, able to discharge Eggs at the rate of several dozens in a minute.

Seriously, it is quite true that the Hen, like other creatures that usually produce but one at a birth, has an occasional tendency to produce twins; but I believe it will be found that such twins hitherto observed, *have been united in one shell, and not produced separately*. Double-yolked Eggs are well known to cooks, and to farmers' wives. Some with triple yolks occur now and then, but rarely. Twin chickens may have rarely proceeded from one Egg. The classic fable of Castor and Pollux looks like some such experience among the ancients; but those Eggs, being oversized, are usually rejected for hatching, and I remember no really authenticated instance of the kind, unless the reader be good-naturedly disposed to accept

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averse to any means being used to force Hens to lay, (such as mingling cayenne-pepper, &c., with their food,) as it induces premature decrepitude. I am continually finding Fowls suffering from dropsy, which I attribute to this cause. I have taken from a Hen two bags of clear water containing a quarter of a pint, and dissection proved their connection with the ovarian system."—*John Bailey*.

a case from Aristotle as such. However, his idea of twinning in Hens evidently coincides with ours, in spite of his having asserted that some fowls lay twice a day. "Double Eggs, however, have two yolks, which sometimes, that they may not be confounded, are separated by a thin interstice of the white; and sometimes the two yolks are in contact with each other without this interstice. There are, also, some Hens that bring forth all their Eggs double, so that in these also, the above-mentioned circumstance happens respecting the yolk. For a certain Hen having brought forth eighteen double Eggs, disclosed a chicken from each, those Eggs excepted which were unprolific. Two chickens also were disclosed from each of the double Eggs, but one of the chickens was larger than the other. But the last chicken that was disclosed was a monster." —*History of Animals*, book vi., chap. iii.—*Taylor's Translation.*

The following is a plausible, but by no means a convincing case. "At Monklaw, near Jedburgh, there was a Duck which laid two Eggs in a day. The fact was proved by locking the bird up, when one egg was found early in the morning and another in the evening. This remarkable Duck was killed by a servant ignorant of its virtues."—*Note to White's Natural History of Selbourne*, Captain Brown's Edition, p. 291. Now Mowbray says, "the Duck generally lays by night, or early in the morning, seldom after ten o'clock, with the exception of chilling and comfortless weather, when she will occasionally retain her Egg until mid-day or the afternoon." Suppose then that the confined Duck, exercising her power of retaining her Egg (a faculty often obstinately used by the Turkey-hen, if it be desired to make her lay in other places than she chooses)—suppose the Duck had laid one, say at two in the morning, and another at ten in the evening of the same day, that could scarcely be called "laying two Eggs a day," unless the confinement had continued, and the same productiveness been manifested for several days in succession. It is here

that proof *of the habit* fails.* Now in regard to the other mode of twinning, the same Editor quotes a correspondent in Loudon's Magazine of Natural History, who says, "I have lately seen a preternaturally large, but perfect Goose's Egg, containing a smaller one within it; the *inner one possessing its proper calcareous shell.*" This is certainly a very singular production. "We have frequently known shells to have two yolks, but this is the only instance we have met with of one

* The subjoined statement is from a friend on whose strict veracity I can quite rely. "In the summer of 1849, I had a Cock and Hen Malay. I kept them in a house with a little yard attached to it, and am certain that no other Fowls could get to them, as the whole was netted over. I have no other prodigy to tell of this Hen (which was a bad layer before the occurrence, and not a layer at all since it) but that she layed four Eggs within forty-eight hours. Thus: on Thursday evening at six o'clock there were no Eggs; the next morning there were two; on Saturday morning there was one more; and on Saturday evening before six o'clock another Egg was layed. Now this was laying four Eggs certainly within forty-eight hours, but it may have been within a still shorter space of time. I could not be mistaken respecting the Eggs, because I then had only two mongrel Hens, which layed very taper Eggs, and some S. Hamburg Hens, which layed purely white Eggs, whereas the Malay layed very large and yellow ones; her Eggs were likewise of a peculiar shape, all of them having a small indenture or mark round them just about the middle. If all the Hens had been kept together in one poultry-yard, I should have had no more doubt as to which laid the Eggs in question, than I have now. I have told perhaps half-a-dozen people of the circumstance, but have reason to think that nobody believed me; and this, added to the opinions expressed in your book, would certainly have prevented me from sending you the above account, but that I am perfectly convinced of its correctness. I kept the Hen for three months after this occurred, and fed her upon corn, green food, with meal now and then, but she never laid another Egg whilst I had her."—*G. P. S.* I can only suppose this to be a case of retention of the Egg from disease, or other cause, and is quite the contrary to being an instance of unusual fecundity.

Egg containing another entire one within it." Other instances, however, are known. A gentleman in my neighbourhood possesses one, if not two Hen's Eggs, each of which contains within itself another smaller Egg with a perfect and complete shell; confirming the statement that twins, in the case of Eggs, are enclosed in one common envelope, and not produced one immediately after the other, as in mammalia.

Mr. Alfred Whitaker says, "I find no room for criticism in your manuscript. Every fact asserted is borne out by my own experience, with the exception that I never saw an instance of one Egg containing another entire Egg within it. Double Eggs I have frequently seen. Their size, and frequently a sort of suture across and around the centre of the Egg, sufficiently indicate their twin nature. Many years ago (in my boyhood) I placed one of these double Eggs among a sitting of Eggs under a Hen. Two live chickens were brought up to the hatching point, but that labour appeared to be too much for their somewhat divided strength, and they were not actually born alive. The fact, however, shows that the Egg in question was a perfect twin Egg." This is a very remarkable case, and deserved preservation in a museum.

"The umbilical part of Eggs is within them from the top, as it were a drop projecting inside the shell."—*Pliny*, lib. x., c. 74. This evidently has reference to the air-bubble. But I am in possession of an Egg of more than ordinary size, laid by a Buenos Ayres Duck, which has one end enclosed, terminating in a sort of membranous funnel, or a continuation of the lining membrane of the shell, giving the appearance of a divided umbilical cord.* An instance which is not unique. "On the day after my return from London, I was looking

* "The stalks of Eggs, whereby they grow to the *ovarium*, are not solid after the manner of the footstalks of fruits, but hollow and fistulous."—*Willoughby*.

round my farm-yard, and found a fresh nest, in a calves' stage, with one egg in it. On taking it up, my servant said, 'Here is something curious,' and I observed that the Egg was evidently double, and that a small portion of the large end of the shell was soft, and that, from the centre of the soft part, a membranous substance was protruding, looking like a dried-up umbilical cord. I opened the egg carefully, and found that this cord was attached to an oval sac within, of a dark colour, filling half the Egg, and that below this there was a perfect yolk. I took out this sac, with the cord attached to it, entire, and put it at once into spirits of wine. My surgeon, who is quite a naturalist and a very scientific man, was much interested with it. His impression was, that the sac contained a chick, and that incubation had been going on in the cloaca of the mother."—*A. W.*

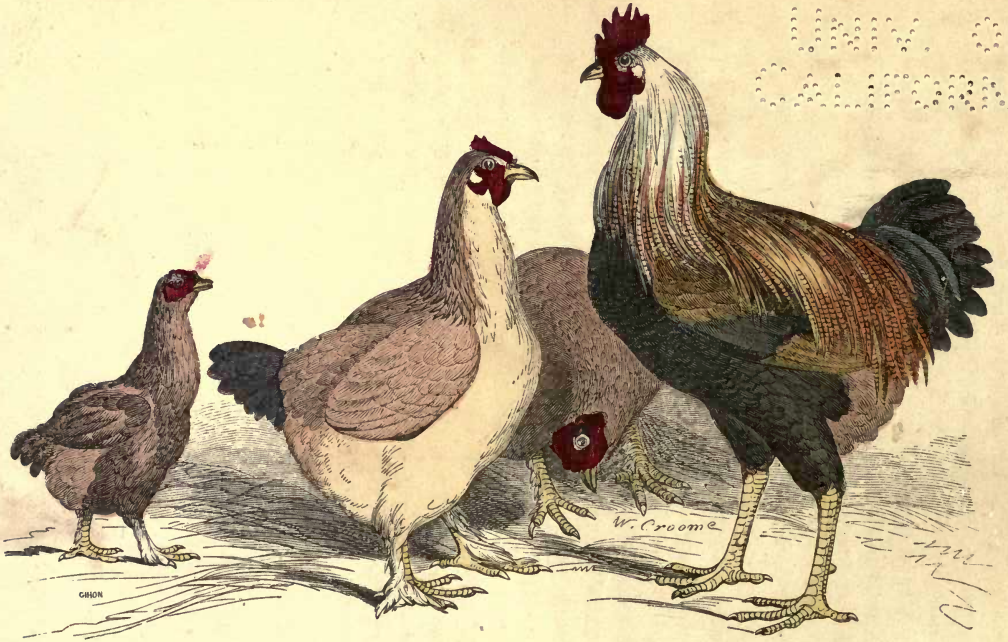
As a tail-piece to this chapter, may be mentioned the popular idea that Eggs are formed in clusters of three in the ovary of the Hen; I mentioned this, per letter, to David Taggart, Esq., of Northumberland, Pa., who is remarkably observant of every thing connected with this subject, and he very kindly and promptly replied to my inquiry as follows:—

"It may be that Eggs are formed in the ovary in clusters of three, but I am very certain they are not *laid* so. A Hen is just as apt to lay 2, or 4, 5, 7, 8, 10, or 11, in as many days, as 3, 6 or 9. I will prove it, by giving in figures the laying of one of my favourites, this season, up to the time of sitting and afterwards. She commenced in January, and this will account for the slow laying at first—1, 2, 2, 2, 3, 4, 5, 6, 8, 6, 7, 4, 4, 4, 5, 4, 4, 4, 4, 5, 11,—102;—and then in this fashion after giving up her chickens—2, 3, 7, 5—(to be continued). And let me add, she has never missed two successive days. You will wonder at the minuteness of my observations, but they are nevertheless mathematically correct and reliable."

CHAPTER VI.

VARIETIES OF THE SHANGHAE FOWL.

THE pure, thorough-bred Shanghae Fowl, in its varieties, is, perhaps, the best, all things considered, of any which we know. The portraits opposite represent a Stag, two Pullets, and a Chick, which I bred last summer, and shipped to Henry Lawrence, Esq., of Mobile. The Chick and Stag were unfortunately lost on the voyage: their places I subsequently supplied by others. The age of the Stag and Pullets, at the time they were sketched, was about five months; the Stag had just commenced to crow, and weighed seven pounds and ten ounces; the Pullets had not begun to lay, and weighed each five pounds and a half, good; the age of the Chick was about six weeks. The Stag and two Pullets are from a pair of Fowls, which I designate the "HUNTRESS" variety, as they were brought over in a ship of that name, direct from Shanghae, in the spring of 1847. The father of the Stag and Pullets is now in the possession of H. L. Devereux, Esq., of Boston. The father of the Chick was imported last spring in the ship "TARTAR"—he is a noble fellow, and is now in the possession of E. R. Cope, Esq., of this vicinity. Of those imported in 1847, per ship "Huntress," the Hen was of a bay or light yellowish colour, and the Cock a yellow or reddish dominique. About one-half of the Stags from this pair are in plumage like the father, the other half are yellow, or red, black tails, and occasionally black



DR. KERR'S SHANGHAES.

(Five and half months old; the Chick six weeks old.)

Cornell University Library

on the breast. The Pullets all take after the mother, presenting a very uniform appearance.

The following is a sufficiently minute and accurate description of this variety. The Cock, when full-grown, stands about twenty-eight inches high, that is, if he be a good specimen—the female about twenty-two or twenty-three inches. I have never seen a large comb or heavy wattles on the Hen, at any age; whereas, the comb of the male is high, deeply indented, and his wattles double and large. I regard, however, as the chief characteristics of this variety, not the comb and wattles, nor even the reddish-yellow feathered leg, but the abundant, soft, and downy covering of the thighs, hips and region of the vent, together with the remarkably short tail and large mound of feathers piled over the upper part of its root, giving rise to a considerable elevation on that part of the rump. It should be remarked, also, that the wings are quite short and small in proportion to the size of the Fowl, and carried very high up the body, thus exposing the whole of the thigh, and a considerable portion of the side. These characteristics are not found in the same degree in any other Fowl of which I have any knowledge. This peculiar arrangement of feathers gives the Shanghae Fowl in appearence, what it has in reality, a greater depth of quarter, in proportion to the depth of brisket, than any other Fowl. As to the legs, they are not very peculiar. The colour is usually reddish-white or flesh-colour, or reddish-yellow, mostly covered down the outside, even to the end of the toes, with feathers. This last is not always the case. The Stag, in the preceding illustration, has no feathers on his legs, while the Pullets, his sisters, are rather heavily feathered. He is, however, an exception to the rule, so far, at least, as his particular family is concerned. But other families of Shanghaes, equally pure, are but very lightly feathered. A gentleman of my acquaintance, Mr. A. Newbold, of Philadelphia, received, in the spring of 1847, from Captain Lockwood, direct

from the city of Shanghae, a Cock and Hen, as pure as any Shanghaes I have seen, differing from other importations only in being nearly smooth-legged, and not attaining to the weight of other specimens. In the second or third generation there was scarcely a feather-legged Shanghae on his premises.

The plumage of the thorough-bred Shanghae is remarkably soft and silky, or rather downy, and is, in my opinion, equally as good for domestic purposes as those of the Goose. They are certainly quite as fine and soft, if not as abundant.

The fertile qualities of this breed may be inferred from what has been attested concerning it. The gentleman from whom I procured the stock previously herein portrayed, wrote to me concerning the imported pair, that, although they had been for several months from the ground, and, when they arrived, poor and verminous, yet, on turning them out about the latter end of May, from that time to the first of the ensuing October, the Hen laid forty-eight Eggs and hatched out two broods. The last brood included twelve Chicks, ten of which he raised through the winter, thus proving themselves able to endure our ever-changing climate. I myself have found the pure Shanghae to equal, if not to excel, any other Fowl in laying qualities—perhaps, the Black Poland Fowl or the Creole may lay a few more Eggs in a year, in consequence of not being so frequently broody, but their Eggs are not so rich and nutritious. Read the testimony of Mr. T. Ames, of Marshfield, Mass. He says, "that one of his neighbours, Mr. Phillips, has a Pullet of this breed, which laid one hundred and twenty Eggs in one hundred and twenty-five days, then stopped six days, then laid sixteen Eggs more, and stopped four days, and is now laying; and that he (Mr. Ames) has one that has done equally well." The Eggs are generally of a pale yellow or nankeen colour, not remarkably large compared with the size of the Fowl, and generally blunt at the ends. I have known but one thorough-bred Hen that laid a long Egg, and have never yet

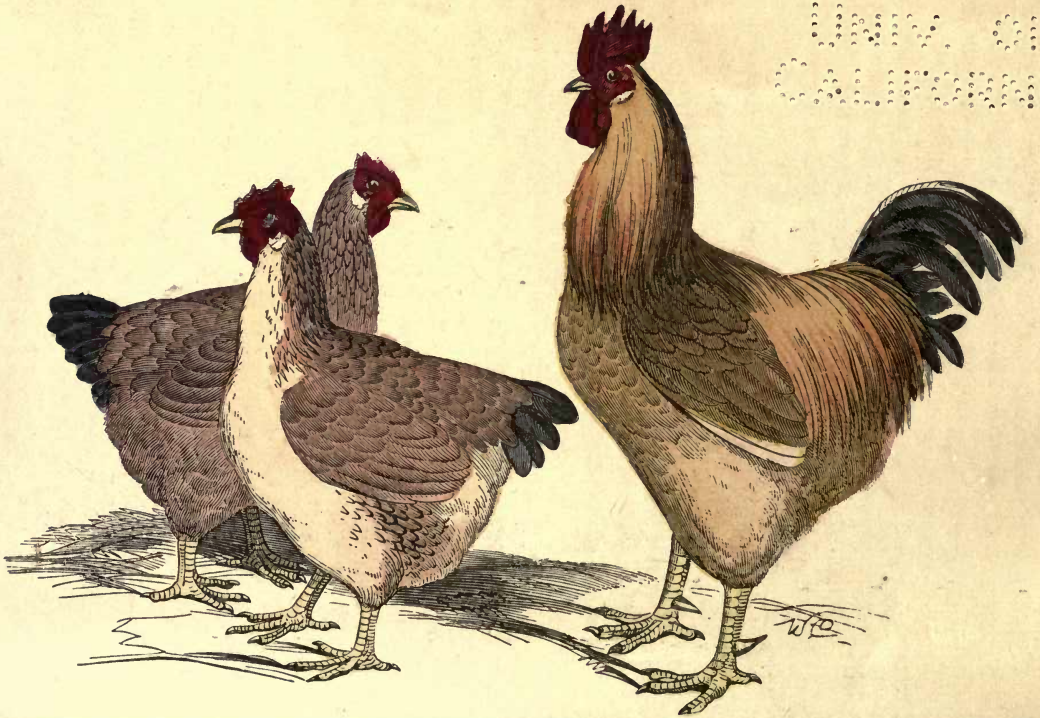
known one to lay what are called double Eggs. The comb is generally single, though I have, in some specimens, seen a slight tendency to *rose*. I have never seen one with a top-knot.

The flesh of this Fowl is tender and juicy, unexceptionable in every respect—in fact, a dish fit for an Emperor. In view, then, of the goodly size of the Shanghae, weighing, as the males do at maturity, from ten to twelve pounds, and the female from seven and a half to eight and a half pounds, and Stags and Pullets of six months respectively eight and six pounds,—in view also of the economical uses to which its soft downy feathers may be applied, also its productiveness, hardiness, and, lastly, its quiet and docile temper,—in view of these things, I am well pleased with pure Shanghaes. I know not a better Fowl. In truth, I might say of it, as the pious Isaac Walton was wont to say of the trout, his favorite fish—"God might have made a better fish, but he did not;" so of the pure unadulterated Shanghae.

The cut on the opposite page accurately represents imported adult Shanghaes which their present owner, E. R. Cope, Esq., procured from me last summer. They were imported about the middle of last April, direct from the city of Shanghae, the head-quarters of this celebrated breed. The Cock I suppose to be from eighteen to twenty months old—the precise age of the Hen is not known. One of the hens weighed, while in my keeping last summer, nearly eight and a half pounds, and I would here remark that *pure* Shanghae Hens rarely exceed that. By crossing them with a Malay Cock, or, indeed, any large Cock, not a Shanghae, they might be thus made to produce mongrels that would draw nine, ten, or even more pounds; but beyond a first cross, fertility, and every other valuable quality, would doubtless be sacrificed to the increase of bulk.

I have just received a letter from my friend, H. L. Devereux, Esq., of Boston, to whom I sent a pair of Shanghaes of my 1847 importation, and he writes, concerning them and their progeny, as follows:

"Friend K.:—Yours of the 9th November, came duly to hand, and just in the midst of our great Poultry Exhibition. It would have pleased me amazingly for you to have seen with your own eyes the *vast amount* of Poultry upon the ground. Our tent was one hundred and fifty-four feet long, by one hundred and fifty wide, filled completely with cages, reserving room enough only for the people to walk. It was indeed a magnificent exhibition, a report of which I will send you as soon as issued. . . . . I have not done much for the last three weeks but prepare, attend to, and settle up the affairs of that exhibition. . . . . Next week I will endeavour to send you some matter for your forth-coming volume on Poultry. . . . . .



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I had almost forgotten to say, that the offspring of the Cock and Hen I had of you, *were as good as any thing in the whole exhibition.* I had, of those raised by a friend of mine, who took the Fowls last spring, previous to my moving into the country, two young Stags, and six Pullets, that were *fully up to any thing.*"

This importation, which, to distinguish it from others, I will call (from the name of the ship) the HUNTRESS IMPORTATION, is quite equal to any I have yet seen. E. R. Cope, Esq., of this city, obtained from me some of my best Fowls of this stock, and he himself will say what, on trial, he thinks of them, as well as of some which we jointly imported from London.

DR. J. J. KERR,

My Dear Sir:—I take advantage of the first leisure moment to make good my promise "to let you know how I liked my imported Chickens."

The coop contained, as you are aware, two Pullets and one Stag of the ROYAL COCHIN CHINA breed, and one Pullet and one Stag of *thorough-bred* MALAY Fowls.

The shipment was made at London, on the 15th July, but, in consequence of a misdirection, did not reach me until the latter end of August, so that the Fowls were in coop more than four weeks.

The ROYAL COCHIN CHINAS were in almost as fine order as though they had been ranging over the lawns at "Windsor," and one of the Pullets commenced laying within one week after their arrival, and the other followed a few days later. I was inclined to think, from this specimen, their laying propensities had not been over-rated, and I take pleasure in saying they have fully maintained their reputation in this regard up to the present time. The two Pullets produced three dozen of Eggs, and, the weather then becoming very hot and sultry, they ceased laying. They commenced again in October, and

continued laying until the cold weather set in early the present month.

As regards the appearance of these Fowls, I am not inclined to say a great deal, being fully convinced that your Artist, Mr. Croome, will do justice to their fine proportions in the engraving he is about to make.

To casual observers, their general appearance is not widely different from the SHANGHAE Fowl, but, when closely examined, the body of the Pullet is longer than any I have seen of its more northern *relative* (for related, and closely too, they certainly are). There is less offal, the legs being shorter, and one of my Pullets, the older of the two, has a deeper and better developed breast, and greater breadth of back than any of my Shanghae Fowls.

The Crower is a very handsome Fowl, with beautiful bright plumage, the feathers soft and fine as down. He has a fine, erect carriage, bright eye, great breadth of back, full chest and deep in the quarter. His comb is single and serrated, thin wattles, and legs feathered. The colour of the legs of these Fowls is uniform—a light flesh-colour, while those of the Dublin stock are varied. I have a Pullet of the latter stock, with legs almost black, and I am informed others are green, yellow, &c. &c. Although Mr. Nolan's (the Dublin) stock, may "have taken a premium at a late fair at the side of the Queen's Fowls," it could not have been for pure breeding, or else the theory "that uniformity in the colour of the legs is the very best evidence of pure and careful breeding," is an exploded idea; and this latter I do not believe.

These Fowls are very quiet and peaceable, but the Stag does not lack courage. They are always ready to take their food, but are satisfied with a much smaller quantity than the Shanghaes. I was a little fearful our cold winters might affect them unfavourably, but we have already had some pretty cold days, and they have shown no symptoms of feeling the change.

My MALAY Fowls are evidently a primitive breed of Chickens, unlike any thing I have seen, except the print of the "Wild Indian Game," in Dr. Bennett's recent book on Poultry. My Pullet resembles the engraving referred to very closely; but as she was sent to me as a PURE MALAY FOWL, I prefer calling her by that name. She is a dark-brown colour, with a short, lofty tail, long neck, without comb or wattles, and very compactly built. Her legs are long and bony, and all her proportions indicate great strength. Although young, (under a year,) she is mistress of the yard, the older Hens having long since acknowledged her supremacy.

The Stag is a noble Fowl, small head, with very small comb, and nearly no wattles, bright eye, long neck, broad back, and stands high on two as strong and bony legs as can be produced. His plumage is dark-brown, and brilliant red. He is a perfect model of strength, very courageous, but always acts on the defensive. He will not commence a battle unless the provocation is great, but then his foe must beware. To conclude, both he and his mate are two of the quietest Fowls in my collection, and will, at any time, eat from my hand, and allow me to handle them at pleasure.

My SHANGHAE Fowls have fully met my expectations in all regards. They are very prolific in Eggs, grow large, and are remarkably exempt from disease.

My *Imported Cock*, now under two years old, weighs *thirteen pounds*. Notwithstanding his great weight, he is very active, stands firm upon his legs, and has a very erect carriage. His plumage is deep, brilliant yellow. He is very attentive to his Hens, and exercises a most fatherly care over the Chicks in his yard. This latter trait I consider invaluable in a rooster.

I was much amused, last fall, to observe the excellent care he exercised over Chicks deserted by their mother. He frequently would allow them to perch upon his back, and in this manner carry them into the house, and then up the chicken-

ladder. When they would reach that part of the ladder they were in the habit of roosting upon, the Chicks would leave his back and perch one under each of the old gentleman's wings. This trait of character may not be singular, but I have never noticed it to the same extent in any other rooster that has come under my observation.

I have several very fine SHANGHAE Hens, some of them imported, but as my space and time are both limited, I must content myself by referring to one only. I select this one on account of her peculiar colour, viz., a rich, brownish-red. I have never before seen a SHANGHAE Hen with dark-red plumage; and this singularity, added to her fine proportions, makes her a most desirable Fowl to breed from. It will not be information to you, but for the benefit of some of your readers not so familiar with this breed of Fowls, I will state that the prevailing colour of the Hens is light-yellow nankeen, dark-yellow, and occasionally a light-bay colour. This red Hen weighs *nine pounds*, and I am fully convinced this is the maximum weight of *pure* SHANGHAE *Hens*.

In conclusion, I will remark that I am well pleased with my Fowls, and consider my ROYAL COCHIN CHINAS, MALAYS, and SHANGHAES, if not the best in the country, certainly the best of these varieties I have met with.

Yours very truly,

E. R. COPE.

Swedeland, December, 1850.

The following letter will show the estimation in which the Rev. Mr. Bumstead holds the Shanghae Fowl:

Roxborough, Pa., December 18, 1850.

DR. J. J. KERR,

Dear Sir,—I much regret my absence from home on the day that Mr. —— called to examine my Poultry. Since our interview at the "Fair," my Fowls have much improved in

appearance. My stock has also greatly increased, having raised over fifty Chickens; both of the White and Brown Shanghaes. Several of these are two months old, the largest, most beautiful and hardy Chickens, for their age, I have ever seen. They command general admiration. Though late in the season when hatched, yet we have lost but two of the whole number. They are heavily feathered, and have all the appearance of our common Pullets of three and four months old.

I hazard nothing in saying, that, if the farmers of Pennsylvania knew the worth of these Fowls, no effort would be spared to obtain them. Of the various breeds, none can exceed (so far as my experience goes) the Shanghaes and the Cochin China Hens for laying. In the month of September, I received from Frederick H. Whitney, Esq., of Dedham, Mass. (who had a large assortment of imported Fowls), three Cochin China, and two White Shanghae Fowls, and since that time, they have laid more Eggs than the whole of my common Fowls together. These Hens have laid almost daily, since that time, and have hatched out five broods; and for three weeks past, there is not a day but they give me an Egg. One of the White Shanghae Hens, though smaller in size than the others, lays a very large Egg—her Eggs are of a chocolate colour, and very rich. She is emphatically the Hen that lays *the golden Egg*. And though I place no confidence in the statement of those who assert that the Cochin China Hen frequently lays two Eggs on the same day, yet I must say she comes *the next thing to it.*

I have in my possession a Cochin China Cockerel, of a yellowish-brown colour, a most perfectly formed bird—his plumage the most glossy and beautiful—and though, but six months old, of great size and power. The double joint of the wing peculiar to this class of Fowls, is quite perceptible. He is my pet bird, and consequently is treated with great kindness.

I am glad to hear you intend publishing a book on Poultry. No doubt but you will give us just the book we need for this latitude. There is a deficiency in many of the works on this subject, which you will be able to supply.

Tell our Pennsylvania farmers that one Rooster and two Hens of the Shanghae breed, will give them more Eggs in three months time, of a greater size and richer quality, than five times that number of ordinary Hens will do in *one year*, and will hatch out a finer brood, with less trouble and more certainty, than any Fowls they have heretofore possessed. And though it is said, we must never count the Chickens *before they are hatched*, yet to this rule there is *one* exception, viz., the *Shanghae Fowls.*

Respectfully Yours,
SAMUEL A. BUMSTEAD.

P. S.—I have also a large black Hen, the Eggs of which very much resemble those of the Cochin China, quite brown in their colour, and very rich. I have crossed this breed with the Brown Shanghae, of which I have now some very fine Pullets, to which I give the name of the *Black Shanghae.* I wish much for you to see them. Will you not favour us with a visit soon?

There is a neighbour of mine, Mr. Samuel Hagy, who owns a variety of Fowls, of a very valuable breed. He has the large Spanish Fowl, and some of the Indian breed. He thinks there are no Hens in the country that lay larger Eggs—they always command a high price, and are eagerly sought for. I shall be pleased to introduce you to his famed stock of Poultry.

S. A. B.

My post-office address is Leverington, Philadelphia county, Pa., or Manayunk.

That variety of Shanghaes called the red, is thus described by the following correspondent, who says:—

"In the year 1849, there was brought out, on board of the Ship Vancouver, from Shanghae, a breed of Fowls, which differs from all others imported from Shanghae, in shape, size, and form of the combs, and the shape and length of the wattles. These Fowls have short legs, and their thighs are larger in diameter than any others brought from that region.

"The body is very wide and deep, and the breast is broad and full, giving the Fowls an uncommonly square appearance. The comb is very large, compared with other Shanghae Fowls, and is larger than that of the Black Spanish, pure specimens of which I have in my yard—they are the original Spanish, selected expressly for me in the interior of Fayal: the Eggs from which have weighed from four to four and a half ounces each, though the Hens seldom weigh over four pounds each.

"The form of the comb of the Shanghae is circular, not angular, as the comb of all others brought from Shanghae, and is deeply serrated, and like the comb of the Black Spanish. The wattles are larger than those of any other Fowls, not excepting the Black Spanish. The cheeks are red. The ear lobes, and is also of that colour, and in keeping with the size of the wattles. The legs and feet are fully feathered, more than in any other breed.

"I still have the original, which have been carefully guarded, and the progeny have improved in size upon the original stock.

JOHN FASSELL."

In a letter to the author, Mr. Geo. P. Burnham, of Boston, Mass., who has bred several varieties of this stock, during the past two years, speaks as follows:—

"For all the purposes of a really *good* Fowl, whether I speak of beauty of model, good size, or laying qualities, I deem the thorough-bred *Shanghaes* among the best, and generally most profitable of domestic birds. For the last two years, I

have bred the Marsh stock, the Forbes, the Palmer, the Parsons, the Baylies, and my own importations; and I have done this practically and experimentally, with a view to obtaining the most prolific, all circumstances considered.

"The Marsh stock breeds rather uneven, latterly; many of the fourth and fifth generations coming deformed and imperfect; this stock is very good, however, and most of the birds prove highly satisfactory. The Forbes and Palmer stocks, for Shanghaes, are very superior. The Baylies and Parsons importations are comparatively run out, from long and careless breeding; and the specimens this year, do not come up to the original at all. The "Perley" Fowls, imported two or three years since into Salem, are good, and the progeny come very like the original; but they are not so large, generally, as some others. J. Fassell, Esq., of Roxbury, has an importation of his own, which promise finely.

"From my own importations last season, I have several very fine specimens of pure Shanghaes, uniform in colour and characteristics, and remarkably heavy for their ages—the Stags, at five to six months old, weighing eight and a half and nine pounds, and Pullets, of the same age, five and a half and six and a half pounds each, live weight. At maturity, these samples will weigh eighteen and nineteen pounds a pair, alive, I do not doubt. The Cock and best imported Hen, (say eighteen months old,) now weigh, after the first moult, seventeen and three-quarter pounds the pair; the Cock is a very fine one, heavily feathered to the toes, (as are also the Hens,) and his colour is a dark brown and black. The Hens (pullets) are of a fawn or pale buff. They are short-legged, comparatively, but heavy bodied, handsomely plumed, and among the very best *layers* I have ever yet seen. I send you a pair of the Pullets, which you can judge of better upon examination. They are a fine sample of the whole. I have a dozen more, precisely

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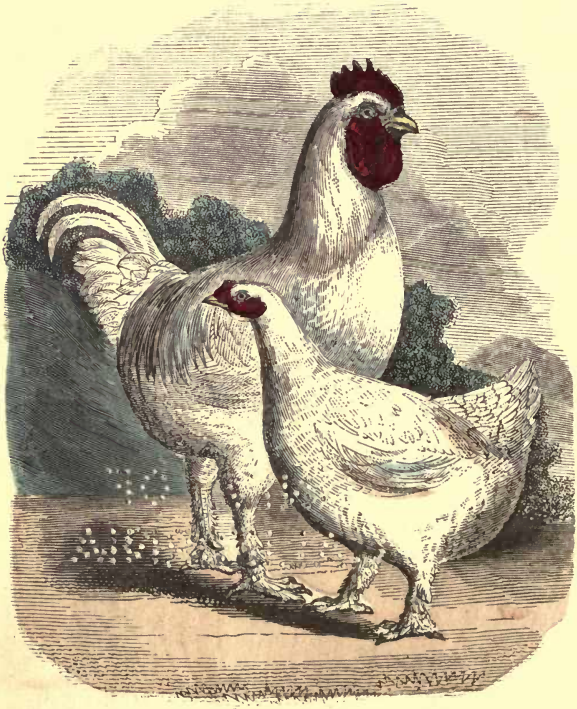


DR. EBEN WRIGHT'S WHITE SHANGHAE FOWLS.

like them, (retained for breeding next spring,) and I deem them very superior as *Shanghaes.*

"I have never seen their equals for *laying early.* In one or two cases, the Cochin Chinas I imported, have commenced to lay at four and a half to five months old. These Shanghaes begin, invariably, at early six months old, and they are very prolific, laying large Eggs, and a great many of them, before showing a desire to sit. All things considered, they are certainly a valuable species of Domestic Fowl, and I am highly pleased with them.

"I have now on the way, direct from Shanghae and Canton, two fresh lots of the 'Cochin Chinas' and 'Shanghaes,' from which, (*with* the stock I have now reserved,) I shall breed another year. The Fowls above alluded to were ordered in November and December, (a year ago,) and I hope to be in receipt of a fine lot, now, in a few days."

WHITE SHANGHAE FOWL.

THERE is a variety of Shanghaes of the above name. They are entirely white, legs usually feathered, and differ in no material respect from the red, yellow, and dominique, except in colour. It has been said that they rarely attain to the size of the other varieties. Their legs are yellowish, or reddish-yellow, and sometimes of flesh-colour. I understand Mr. Giles, of Providence, R. I., to prefer them to all others. Their Eggs are of a nankeen or dull-yellow colour, blunt at both ends. The following communication on White Shanghaes, together with original drawings, from which the opposite portraits were made, were obligingly furnished by Dr. Eben Wight, of Boston. He keeps his Fowls, of which he has several choice breeds, on his farm, at Dedham, Mass. He says:

Among the many varieties of the Gallus race which have been introduced into the New England States from China, there is no variety which possesses so many good qualities as the White Shanghaes.

The White Shanghaes are larger and more quiet than other varieties. The flesh of these Fowls is much superior, not sinewy or "stringy," as is the case with the flesh of most of the other Shanghaes. The Eggs are larger, and these Hens are more prolific than those of other colours.

In their habits they are more quiet, and less inclined to ramble. These habits render the Hens invaluable for incubators and nurses, and the mildness of their disposition makes them excellent foster-mothers, as they never injure the Chicks belonging to other Hens. I am induced to speak more fully of these characteristics, from the many vexatious losses I have suffered in the experiments I have tried.

I have imported different breeds of Fowls from Europe and elsewhere, and have received from many friends specimens of choice Fowls, and my endeavours to propagate them have been frustrated by the rambling or quarrelsome disposition of the Hens which I have been obliged to use for incubators and nurses. I have lost, oftentimes, by quarrelsomeness of the Hens, their entire broods; for instance, the Game Hens are constant sitters and careful nurses to their own Chickens, but are exceedingly cruel to those of other Hens. The moment one of their Chickens is injured, a fight is commenced, and the Chickens, alarmed at the turmoil, crowding around their dams, are many of them killed, and the victorious Hen, after her opponent has retreated, will attack every Chick within her reach, and oftentimes, in her desire for revenge, mistaking her owns Chicks as belonging to her antagonist, destroys them. In the mean time the vanquished will destroy every stranger's Chick that comes within her reach.

A Hen of active and energetic disposition confined in a coop,

will soon reduce her brood by the blows given in scratching. The Chicks are knocked right and left, and those few which may survive the confinement are destroyed by dew and rain, lost in the grass, or, becoming tired, are left by their dam, who, in the exuberance of her delight at her escape from confinement, forgetting that her Chicks are not as strong as she is, goes on her way rejoicing, till, finding a fat worm or grub, she seizes it, and while seeking for her little ones, her attention is attracted by some fat grass-hopper, and away she darts in pursuit. Becoming somewhat fatigued herself, she calls her Chicks to be brooded, and finding herself alone, she is alarmed, and rushes to find her Chickens, and by her loud cries drowning the feeble chirpings of her little ones, she finally returns to her coop alone. It would have been better to have eaten the Eggs than to have trusted them to such a Hen. Would it not? I have many a time thought so.

Having, as I before stated, met with many vexatious losses, I, as you must readily conceive, do most highly prize the White Shanghae Fowls for their quiet dispositions. These Fowls are not sluggish or stupid; on the contrary, they are intelligent and confiding. To persons who have the "everlasting layers," the Black Spanish, for instance,—a breed that never shows the slightest desire to incubate,—the White Shanghaes are invaluable for the purpose of rearing Chickens.

The Fowls of which the artist made the drawing from which the portraits are engraved, were imported from Shanghae, and were there purchased as a pure race, and were warranted as such. I received them directly from the ship, and as evidence of the purity of blood, I mention that every Egg that has been laid has incubated, and every Chick that has been hatched, has been uniformly white, and there has not been the slightest variation in form or plumage.

These Fowls will rank among the largest coming from China, and, as a proof that they thrive well in this climate, I will in-

stance that one of the progeny, a Cock, not yet eight months old, being one of the first brood hatched, weighs fully eight pounds, and the Pullets are proportionably large. They are broad on the back and breast, with a body well rounded up; the plumage white, with a downy softness—in this respect much like the feathering of the Bremen Goose; the tail feathers short and full; the head small, surmounted by a small, single, serrated comb; wattles long and wide, overlaying the cheek-piece, which is also large and extending back on the neck; the legs are of a yellow hue, approaching a flesh-colour, and feathered to the ends of the toes.

EBEN WIGHT.

Dedham, Mass., December 5th, 1850.

CHAPTER VII.

THE COCHIN CHINA FOWL.

As there occurs in this chapter of Mr. Dixon's book, several lists giving the weight of different kinds of Fowls, and as Mr. J. J. Nolan, of Dublin, seems to regard the weights thus given as ridiculously small for first-class birds, I beg to offer a few remarks on the subject. When the weight of a Fowl is mentioned, I at once inquire the age, as much depends on that. I had a Pullet once, a mixture of Malay, Cochin China, and perhaps Shanghae, that, when she came to her first laying, being then about seven or eight months old, weighed exactly nine and a quarter pounds; when she came to her laying the next season, being then about one year older, she weighed a fraction over eleven pounds; and when she began to lay the third season, she weighed thirteen and a quarter pounds. She then passed out of my hands, but I heard during the summer, from the gentleman who now owns her, that, on coming to her laying on the fourth season, being then between three and four years old, she weighed thirteen and a half pounds. Another remark I would offer in this connexion: it is important, in estimating the value and size of a Fowl, on having the weight stated, to know not only the condition of the Fowl, and the age, but also the season of the year. I have found both Cocks and Hens to be at their maximum weight in February: they are then recruited after moulting; the Hens are about beginning

to lay, and the Cocks are not reduced, as they are at the close of the breeding season. The thirteen and a half pounds Hen just mentioned, was reduced in her third moult from thirteen and a quarter pounds to eight pounds ten ounces! Others, of course, are proportionately reduced by the same cause.

Very little is known of the origin of the Cochin China Fowl, further than that some gentleman, three or four years ago, presented a few to the Queen of England, who subsequently had them bred at Windsor Park. In order to promote their propagation, her Majesty made presents of them occasionally to such persons as she supposed likely to appreciate them. They differ very little in their qualities, habits, and general appearance from our Shanghaes, to which they are undoubtedly nearly related. The Egg is nearly the same size, shape, and colour; both have an equal development of comb and wattles, the Cochins slightly differing from the Shanghaes, chiefly in being somewhat deeper and fuller in the breast, not quite so deep in the quarter, and being usually smooth-legged, while the Shanghaes, generally, are more or less heavily feathered. The plumage is much the same in both cases, nor have I discovered any difference in the crow, it being in both equally sonorous and prolonged, differing considerably from that of the great Malay. Mr. Nolan says "that full-grown Cocks, from one and a half to two years old, average a weight of from ten to twelve pounds, the Hens from eight to nine pounds. The male bird stands about two feet high; the female about twenty-two inches. . . . . The Cock's comb is usually single, serrated, and erect, of a brilliant scarlet, but not always single; I have had both single and double combs in the same clutch; the wattles are large; they are quite free from top-knots; the hackles on the neck and hips, yellowish-brown; the tail black, with metallic lustre, and, when fully furnished, presents the usual cock's plume; the legs vary from a flesh-colour to an orange-yellow, and are not so long as in the Malay; the Eggs

are generally buff-coloured, of large size, and blunt at the ends; the Chickens progress rapidly in size, but feather slowly."

E. R. Cope, Esq., of this city, and myself imported a few Fowls from London last summer; the three Cochin Chinas whose portraits precede this chapter, were of the number, and were procured of the Messrs. Baker, of Chelsea, and are now in the possession of Mr. Cope, who has had a good opportunity for becoming acquainted with their habits and qualities. His estimate of them is expressed in the preceding chapter, in connection with the Shanghaes.

COCHIN CHINA FOWL.—BURNHAM'S IMPORTATION.

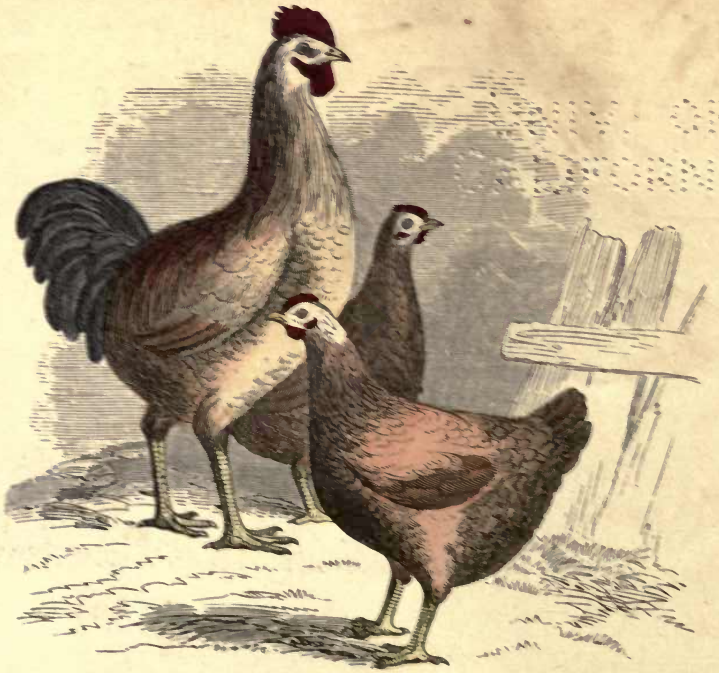
In reply to a request of the Editor, Geo. P. Burnham, Esq., of Boston, Mass., communicated the following, in reference to his two importations of *Cochin China Fowls*, introduced into this country in January and February, 1850. In a letter dated December 1st, 1850, he writes:—

It affords me pleasure to give you a brief account of my Cochin China birds, and, in accordance with your desire, I would state that I have given them a thorough experimental trial during the past year, and can "speak by the card," from actual knowledge of the habits and qualities of those I have imported and bred.

You are already aware that I obtained two lots of these Fowls early in the present year—one batch, of six, from J. J. Nolan, of Dublin, and the other six direct, by ship, from Canton. All the imported male birds are now dead; three of them were killed by fighting, and the fourth died suddenly, (in my absence from home,) from some unknown cause. Of the original Hens, I have but three remaining—one of Nolan's, and two of the others. Of the *young* stock, however, I have reserved twenty-five specimens—say, eighteen Pullets and six or seven Cocks, (Stags,) which promise finely for another season.

For all the purposes of a really *good* Domestic Fowl—whether I speak of productiveness, easy keeping, laying qualities, size, disposition, beauty of form and plumage, or hardiness, (in this climate,) after a careful comparative trial, I deem the Cochin Chinas *the best*. This is saying much in their favour, I know; but you ask my real opinion, and I give it honestly. To my fancy, they have no equals among the varieties now known in America.

In the multiplying of all kinds of stock, it is admitted that there are exceptions, or rather a choice, among the progeny



MR. G. P. BURNHAM'S COCHIN CHINAS.

(Six and a half months old.)

produced. I have found this the case with my Cochin China Fowls, and I have *selected* my birds for future breeding, accordingly. One of the Nolan Cocks showed a slight germ of feathering upon the legs; so with one of the Canton Hens. A few of the Chicks were similarly marked, but this feature does not appear to any extent. I *breed* from the smooth-legged Fowls exclusively.*

My object in importing these birds was to obtain, if possible, the best to be had, all things considered; but I look upon fine flesh, and close-grained, juicy meat, as being of greater consequence than mere size, beauty, or prolific qualities. The Cochin Chinas are not so large, usually, as the Chittagong, for instance; but my experience leads me to prefer the former; and I have tried both varieties—side by side—to arrive at this conclusion.

My two best Cochin China Hens have this year laid—from the middle of February to about the first of September—almost constantly. In the six and a half months, they laid over one hundred and sixty Eggs, each. Since the middle of October, they have again commenced laying, and have done as well. The Pullets out of this stock have laid at four and a half to five months old, invariably. I breed both importations together, now, and they do equally well, I find.

The old Fowls have weighed, when in their best condition—Hens, eight, eight and a quarter, and eight and a half pounds; the Cocks, from ten to eleven and a quarter pounds, each. This is heavy enough to answer my wishes or expectations.

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* If my friend B. rejects all that are more or less feathered on the legs, he will, in time, reduce the size of his fowls, and vice versa. See a pure Shanghae stag I raised last summer, portrayed on a preceding page—his legs are as smooth as an icicle. See also E. R. Cope's Cochins, moderately feathered—also Mr. Giles's stock, all equally pure feathered also.—ED.

Though at times they have all inclined to do so, I have never set but one of the imported Hens; she proved an excellent mother, and reared eleven out of thirteen of her Chicks. I think them too clumsy, however, as sitters, and should avoid it, if practicable.

My Cochin China Fowls have been much admired, and this stock (old and young) has taken the *first* premiums at *all* the Fairs or Exhibitions in Massachusetts, where they have yet been shown. This is some evidence of their excellence, in view of the generally acknowledged fact, that there are some very fine fowls here, out of other importations from Shanghae and Canton. I have found the young birds, latterly, very hardy—though at first I lost a goodly number from breeding too early.

The prevailing colour of my birds is yellow, or yellowish-brown Pullets—and yellow and red, or yellow, red and brown Cocks. They have never deviated from this range of colour, except in two or three broods out of the dark *Canton* Cock—all of which are now extinct. The Chicks come even in size and plumage; and down to the third generation, they have bred exactly the same: this is a very satisfactory result, in my estimation. I have never yet seen a black, a grey, a white, or a speckled Chick, from this stock! A very few specimens have shown a dark leg; but, with the epicure, this is desirable, and I do not discard these birds on that account—though my own taste favours the yellow limb.

I am more and more confirmed in my opinion that the "Cochin Chinas" and "Shanghaes" originate from the same primitive stock. The difference between the two varieties is distinct, but the *general* characteristics, (so far as my experience goes,) are similar. The Cochins are longer legged, longer necked, and longer bodied, generally; they should be smooth-legged, and are usually a heavier Fowl at the same age I think the *pure* Shanghae tribe are uniformly heavily

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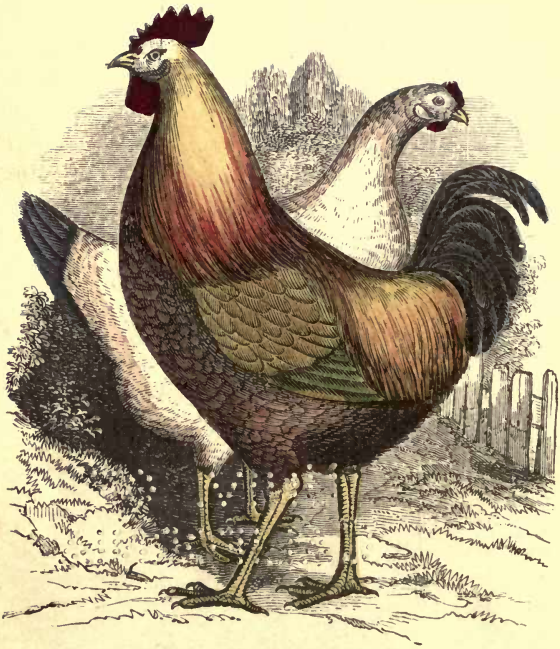

MR. GEO. P. BURNHAM'S ROYAL COCHIN CHINA FOWLS.

feathered upon the leg; and I would breed none others, for *Shanghaes*. As to the comparative laying qualities of these two, I have found but little difference among the best specimens; either are excellent layers, and both breeds have now their champions among our New England fanciers. For one, *I* prefer the Cochin Chinas to any fowl I have ever yet met with.

I have sent samples of my Cochin China stock to South Carolina, Pennsylvania, Georgia, Louisiana, Ohio, Michigan, Maine, and New York; and, in every instance, they have more than fulfilled the anticipations of purchasers. Other fanciers prefer other varieties: I have bred them all, more or less, but I am content with these; and if the young stock prove as good as the old Fowls have, I think it will be difficult to find any variety to excel them.

I send you portraits of two groups. The first is a pair of the "Royals," (so called to distinguish them from others,) and were drawn from life, by S. E. Brown, of Boston. The other group is a trio of this year's birds, drawn also from life, by F. A. Durivage, from the stock I am now breeding. I think they will compare favourably with the best specimens of Domestic birds in our country, and I assure you the portraits are very truthful. With my best wishes for the success of your contemplated work on Poultry, and the suggestion that you can use this hastily prepared account in such way as may be agreeable to you, I am,

Very truly, yours,

GEO. P. BURNHAM.

Melrose, Mass., 1850.

At the Exhibition of Poultry in Boston, in October, 1850, the Committee awarded to George P. Burnham the *first* premiums for Fowls and Chickens. The prize birds were the "*Royal Cochin Chinas*" and their progeny, which have been

bred with care, from his imported stock; and which were generally acknowledged at the head of the list of specimens. At this show, Mr. Burnham declined an offer of $120 for his twelve premium *Cochin China* Chickens, and, subsequently, $20 for the choice of Pullets.

The committee of this Exhibition, in their published Report, state, that "the specimens displayed on this occasion, embraced almost every known variety of the best Domestic Fowls; and the number of samples of Aquatic, Ornamental, and Cage birds was very generous. The improvement made in breeding, during the past twelvemonth, was very apparent in the character of a large proportion of the fine gallinaceous Fowls exhibited—these being, for the most part, from late imported stocks, in many cases very carefully bred."

"The magnificent samples of *Cochin China* Fowls, contributed by G. P. Burnham, were the theme of much comment and deserved praise. These birds include his imported Fowls and their progeny—of which he exhibited nineteen splendid specimens. To this stock, the Committee unanimously awarded the *first* premiums for Fowls and Chickens; and finer samples of Domestic birds will rarely be found in this country. They are bred from the Queen's variety, obtained by Mr. Burnham last winter, at heavy cost, and are unquestionably, at this time, the finest thorough-bred Cochin Chinas in America."

I have said that the family of Shanghaes and that of the Cochin Chinas are very nearly allied. Under this impression, I wrote a twelve month ago to the Rev. Mr. Dixon, giving him a close description of two varieties of Shanghaes which I knew to be pure—at least, I was certain they came from Shanghae; the varieties differing only in the one being about fifteen or sixteen pounds per pair, and being comparatively smooth-legged, and the other running from seventeen to twenty pounds per pair, and being well feathered on the legs in general, though

not invariably. In answer to my letter, he says, "In reply to yours of the 28th ult., you may take it for granted that the stories respecting the Cochin China Fowls, that they have a black horse-shoe mark across the breast, that the feathers of the back of the neck are reversed, that the last joint of the wing is contrived so as to be folded up, etc. etc., are apocryphal. I have little doubt that your first named variety, (the variety weighing from fifteen to sixteen pounds per pair,) 'almost smooth-legged, (the Cock some shade of yellow or red, the Hen some shade of bay,') are the same as the Queen's Cochin Chinas, especially if the Cocks have a large, single, upright, deeply indented comb, (which they have.) It is probable that both your first varieties have been imported into this country, and been crossed with each other, so causing a little difficulty about their distinctiveness."—He says, in the same letter, "it is impossible to learn the *native* place of the Queen's Fowls."

Of the smaller of the two varieties, which Mr. Dixon thinks are identical with the Queen's Fowl, Mr. C. S. Sampson, of Boston, got a beautiful pair of me, last spring, for which, I understood him to say, he was offered twenty-five dollars, a few days after he received them. The Cock weighed about nine pounds, perhaps a little more, and the Pullet nearly six pounds. They were the most perfect in model of any bird of the kind I had ever, seen. Of the larger variety, Mr. Devereux of Boston, has a pair: the Cock is a noble fellow, indeed. Mr. H. Lawrence, of Mobile, also obtained some of me, with which he expressed himself as well pleased. So also Mr. Taggart, of Northumberland, Pa.,; Mr. Hugh Wilson, of South Carolina; Mr. Evans, of Baltimore; Mr. Knorr, of West Philadelphia; Rev. Mr. Goddard, and Messrs. Remington, and E. R. Cope, of Philadelphia; besides many others whose names I cannot now recall; and all of whom, so far as I know, are perfectly satisfied with them.

Of this so much and deservedly lauded Fowl, Mr. Dixon says:—

Whether the breed now under consideration did really come from Cochin China or not, is probably known only to the party who imported them, if to him. But they certainly have been cultivated in this country previously to their recent introduction to general notice as the most conspicuous ornaments of the Royal poultry-yard. A gentleman (W. S.) living in Monmouthshire, informs me that, nearly thirty years ago, a friend sent him a Cock and Hen of the "true Java breed." The Cock was so fine, large, and handsome, that he was immediately made "Cock of the walk." The present stock on that farm, which I have seen, are entirely his descendants, and are true Cochin China Fowls; so that, in this case, "Java" and "Cochin China" are synonymous. The first parents of this lot came direct from India. But from whatever Oriental region derived, it is a most valuable variety, and the only fear is that statements of its merits have been set forth so highly exaggerated, that they must lead to disappointment, and cause the breed to be as much undeservedly underrated, as it had been before foolishly extolled.

The size and weight ascribed to them are enormous. To give an idea of their height and magnitude, they have been styled the Ostrich Fowl. It is an old, but very bad system of giving names, to affix that of some other creature, indicating certain supposed qualities; for such titles are apt to induce notions of relationship, or hybridity, which are not easily dislodged from the minds of many people. The Cochin China Fowls have been averred, in the Agricultural Gazette, (Sept. 30, 1848,) to weigh, the male birds from twelve to fifteen pounds, the Hens from nine to ten pounds. They certainly must be very fine indeed: for the weights specified are those of respectable Turkeys, not of Fowls. My own Cochin China Fowls, obtained from the Messrs. Baker, now about eighteen months

old, weighed, the Cock six pounds five ounces, the Hen four pounds six ounces. Some allowance must be made for the circumstance that both were moulting, and that the Hen had laid fairly during the season, and had not yet (Oct. 4) relinquished the charge of her second brood of Chickens. She laid exactly three dozen Eggs in the spring, and then sat. After rearing her Chicks admirably, she again laid a smaller number of Eggs, and sat. The best Cockerel and Pullet of the brood hatched April 5th, and which had only ordinary care and feeding bestowed upon them, weighed, on Oct. 4, five pounds eight ounces, and three pounds and thirteen ounces, respectively.

The reader will be better able to judge what weights Fowls may be reasonably expected to attain, after the inspection of the following lists of the live weights of various Poultry, with which I have been obligingly favoured. But as the birds were generally out of condition, in consequence of their being mostly at that time on the moult, and also from the previous wet season, the weights are less than they would be under more favourable circumstances.

One list *(H. H.)* gives—

	LBS.	OZ.
" Black Polish Cock, three years old	5	3
Ditto Hen ditto	3	4
Ditto Pullet	2	6
Golden Polish Cock	5	0
Ditto Hen	3	8
Another Hen	3	10
Golden Polish Pullet	2	8
Malay Hen	3	12
Creole (Silver Hamburgh) Hen	3	1
Black Nondescript Hen	4	10
Globe-crested Polish Hen	3	9
Silver Polish Hen	3	4

	LBS.	OZ.
Game Cock	4	10
Ditto Hen	3	0
Young Blue Dun Cock	3	6
Blue Dun Hen	3	0
Large Dun Hybrid Hen	3	8

"Among these, the Malay Hen was moulting, and not up to her usual weight by nearly a pound. It will be observed that there is a great relative difference between the Pullets and the grown Hens of the Polish breed. All the Polish increase much in size and beauty the *second* moult."

Another list kindly furnished by Mr. Alfred Whitaker, gives—

	LBS.	OZ.
"Pheasant-Malay Cocks, two years old, average each	7	0
Ditto Cockerel, five months old	7	0
Ditto Hen	5	1
Ditto Pullet, seventeen months old	5	3
Ditto (crossed with Dorking Hen), four years old	5	8
Speckled Surrey Hen, two years old	5	12
Spanish Hen	5	0
Two Dorking Cocks, each	7	0
Ditto Hens	6	8
Ditto ditto	6	12
Cock Turkey, two years and a half old	17	12
Hen dittto, one year and a half old	10	0
Ditto ditto	9	9
Musk Drake (moulting)	9	12

"The Dorkings belong to a neighbour, and are very fine ones. The Hens, it will be seen, approach nearer to the weight of the Cocks than is the case with the Pheasant-Malays. The Spanish Hen is about to moult, and is rather under weight."

Our own Poultry-yard furnishes these :—

	LBS.	OZ.
Turkey Cock, sixteen months old	16	0
Ditto Hen, three or four years old	8	6
White China Gander, six years old	12	13
White China Goose	11	13
Common China Goose, Cynöides, six years old	10	10
Cochin China Cock, about sixteen months old, moulting	6	5
Ditto Hen ditto ditto	4	6
Malay Cock ditto ditto	6	14
Ditto Hen ditto ditto	4	8
Pheasant Malay Cock	5	7
Ditto Malay Hen, moulting	3	8
Game Cockerel, about five months old	4	2
Golden Hamburgh Cockerel, just arrived from a long journey, about five months old	3	8
Ditto Pullet ditto ditto	2	4
Cochin China Cockerel, six months old	4	14
Another ditto	4	13½
Silver Hamburgh Cockerel, after travelling, about five months old	3	1
Ditto Pullet ditto ditto	2	8
Black Polish Hen moulting	3	0
Golden Hamburgh, ditto	2	3
Andalusian Cockerel, four months old	3	8
Ditto Pullet ditto	2	6½
Black Spanish Cockerel ditto	2	11
Ditto Pullet ditto	2	11
Silver Polish Cockerel, four months and a half old	2	14½
Golden Poland Pullet, about five months old	2	8
White-crested Golden Poland Pullet, ditto	2	3

It will appear from the foregoing, that for a Cock, of any breed, to reach seven and a half pounds, even live weight, he must be an unusually fine bird; but this has to be doubled before we can rival the Cochin China specimens above mentioned. I have never yet seen Cocks and Hens weighing fifteen pounds and ten pounds, respectively: those most nearly approaching these weights have been Malays, not Cochin Chinas—ancient and venerable birds, looking old enough and tough

enough to have performed the migration from India on foot. It has also been incorrectly asserted that "the disposition of the feathers on the back of the Cock's neck is *reversed*, these being turned upwards; the wing is jointed, so that the posterior half can, at pleasure, be doubled up, and brought forward between the anterior half and the body:" the only foundation for which absurdity is, that, in some of the half-grown Cockerels, certain feathers, the wing-coverts, curl forwards; but the curling disappears with the complete growth of the plumage.* But the long bow is stretched even yet a little further: "they sometimes lay two, and even three Eggs a day, and that within a few seconds of each other." No doubt of it; however physiologically improbable the performance of such a feat may be. And an American newspaper kindly informs us how other Hens may be taught to follow so good an example. "A cute Yankee has invented a nest, in the bottom of which there is a kind of trap-door, through which the Egg, when laid, immediately drops; and the Hen, looking round, and perceiving

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* Mr. Bissell further explains the mystery: "I had a Cockerel that was unusually slow in getting his feathers, and, as may be expected, was very much pinched with the cold; he would frequently squat down upon the straw in a shed, to rest himself, and perhaps for warmth also (which is a very usual thing for them to do); and in that position I have frequently seen him, in the effort to keep himself warm with the few flight-feathers that he already had, turn them under his wing and against his body, which I have no doubt has given rise to misrepresentation. I have carefully examined him, and can testify that the conformation of his wings is the same as in all other Fowls, and now he is older and better feathered, he never places the feathers of his wing in the position I have now described.

"I find among my Cochins some feather-legged specimens; and others that I have seen, which came from Windsor direct, have some of them the same appendages; and I believe them to be quite pure notwithstanding."

none, soon lays another!" Natural History has a hard struggle to come at correct conclusions in this department of ornithology.

The Cochin China Cock has a large, upright, single, deeply-indented comb, very much resembling that of the Black Spanish, and, when in high condition, of quite as brilliant a scarlet; like him also, he has a very large white ear-lobe on each cheek.* The wattles are large, wide, and pendent. The legs are of a pale flesh-colour: some specimens have them yellow, which is objectionable. The feathers on the breast and sides are of a bright chesnut-brown, large and well-defined, giving a scaly or imbricated appearance to those parts. The hackle of the neck is of a light yellowish brown; the lower feathers being tipped with dark brown, so as to give a spotted appearance to the neck. The tail feathers are black, and darkly iridescent; back, scarlet-orange; back-hackle, yellow-orange. It is, in short, altogether a flame-coloured bird. Both sexes are lower in the leg than either the Black Spanish or the Malay.

The Hen approaches in her build more nearly to the Dorking than any other, except that the tail is very small and proportionately depressed: it is smaller, and more horizontal, I think, than in any other Fowl. Her comb is moderate-sized, almost small; she has also a small white ear-lobe. Her colouring is flat, being composed of various shades of very light brown, with light yellow on the neck. Her appearance is quiet, and only attracts attention by its extreme neatness, cleanness, and compactness. My male bird has two claws on

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* "I have seen a great many Cochin Fowl, and have observed that but few of them had white ear-lobes; I therefore conclude that it is not an indispensible, if even a required qualification." *J. Bissell.*—It is, however, to be preferred, for beauty at least, if not as a mark of pure blood.

the toe of one foot—a peculiarity which is inherited by some of the chickens.

The Eggs average about 2 oz. each. They are smooth, of an oval, nearly equally rounded at each end, and of a rich buff colour, nearly resembling those of the Silver Pheasant. The new-hatched Chicks appear very large in proportion to the size of the Eggs. They have light flesh-coloured bill, feet, and legs, and are thickly covered with down, of the hue vulgarly called "carrotty." They are not less thrifty than other chickens, and feather somewhat more uniformly than either Black Spanish or Malay. Nevertheless, it is most desirable to hatch these, as well as other large-growing sorts, as early in the spring as possible; even so soon as the end of February. And it deserves consideration, whether those breeders are not the wisest, who do not allow their Hens to hatch *chickens* after midsummer. A peculiarity in the Cockerels is, that they do not show even the rudiments of their tail feathers till they are nearly full grown. They increase so rapidly in other directions, that there is no material to spare for the production of these decorative appendages. A gentleman, to whom I sent a pair, wrote word that one of the Fowls had had the misfortune to lose his tail on the journey. An Egg hatched at a distance was said to have produced something more like an Eaglet than a Chicken. The Pullets are less backward in shooting their tails; and this distinction alone is sufficient to denote the respective sexes at a very early age. The Cockerel is later than others in commencing to crow.

The merits of this breed are such, that it may safely be recommended to persons residing in the country. For the inhabitants of towns it is less desirable, as the light tone of its plumage would show every mark of dirt or defilement, and also the readiness with which they sit would be an inconvenience, rather than not, in families with whom everlasting layers are most in requisition. At present, they are too expensive to

have had their edible qualities much tested. Most persons would prefer gratifying a friend with the living, rather than their own palate with the dead birds. But they are equal or superior to any other Fowl for the table: their flesh is delicate, white, tender, and well-flavoured.

The Cochin China Fowl are said to have been presented to her Majesty, Queen Victoria, from the East Indies, and, by her liberality, imparted to such persons in the country as were likely properly to appreciate them. It is delightful to see so good an example in communicating a valuable stock, and also in aiding Natural History by making no secret of the source whence it was derived, although, as we have seen, they are really no novelty. The shape and size of the Eggs of the Cochin China Fowl, their qualifications as layers and mothers, the frequency of the fifth toe among them, and their general build and carriage, point out their very near relationship to the Dorkings: they are, in truth, the Dorkings of India. In the west of England there has lately been introduced an extra-sized variety of Fowl called the American, (and really imported from America,) but derived from what original source we cannot yet trace. These, however, do not exhibit marks of much distinctness of race or purity of blood, except their vast bulk, but display traces of both the Malay and the Cochin China type, inclining in the best specimens to the latter, with a probable intermixture of Dorking or Spanish blood. Such birds, except during their early youth, would suit the purposes of Chinese cooks, with whom sinews and tendons form the great delicacies of the table, rather than of English artists, who prefer to exercise their skill on what will furnish a sufficiency of tender meat. Still, they suggest the idea that it may be found more profitable, in crossing for the larder, to cross constantly two large breeds, than to go on with one pure breed; exactly as, in raising a supply of sheep for the butcher, the first cross between the Leicester and the Southdown

answers so well. So, we will quote the song of Hecate, and chant over the poultry yard,

"Black spirits and white,
Red spirits and grey,
Mingle, mingle, mingle,
You that mingle may."

Another Chinese Cock, as the old naturalists would announce it. Dr Bevan, of Machynlleth, Montgomeryshire, has favoured me with the following:—"I only commenced keeping Fowls last year, (1847,) when a hen, purchased for the pot, stole a nest in the field. Having heard of a particular breed, brought from China as a present to the late Sir Robert Vaughan, which were said to be capital layers, very much disposed to become fat, with the flesh delicately white, approaching in flavour to that of game, I begged the favour of a few Eggs, and was able to rear two Cocks and two Hens. When hatched, and for several weeks afterwards, they looked more like young Ducklings than young Chickens, and their feathers were pushed forth so slowly that, even when a month old, there was very little appearance of wings, and none of tails, and it was another month before they were able to fly half a yard high. The two brothers continued very amicable till they were six or seven months old; at that age, the strongest began to tyrannize, so I gave him to a friend. The Hens began to lay when between five and six months old, and they have continued to lay almost daily ever since. The Eggs, at first, were very small, but have been slowly increasing, and at this time they weigh about an ounce and a quarter; one Hen lays perfectly white Eggs, the others are cream-coloured, and both are of a dumpy oval shape. *The Hens still retain a somewhat peculiar appearance, having stout legs and thighs, and being almost as broad as long. The tails continue short, not half the usual length;* but the Cock, who is a very fine,

handsome fellow, has but little peculiarity about him, only being, like the Hens, of smaller size than the Barn-door Fowls. They are remarkably tame, indeed, rather troublesome, depending, in part, perhaps, on the manner in which they have been brought up. They all seek the shelter of a building by night, and one of the Hens never roosts, but sits all night upon her nest. From what I have said, you will infer that, as yet, I have not tasted the flesh of this variety, nor shall, of course, till next autumn; but, as the other character I had of them is correct, I give credit for that also. There is another Chinese variety in the neighbourhood, the bones of which are said to be black.

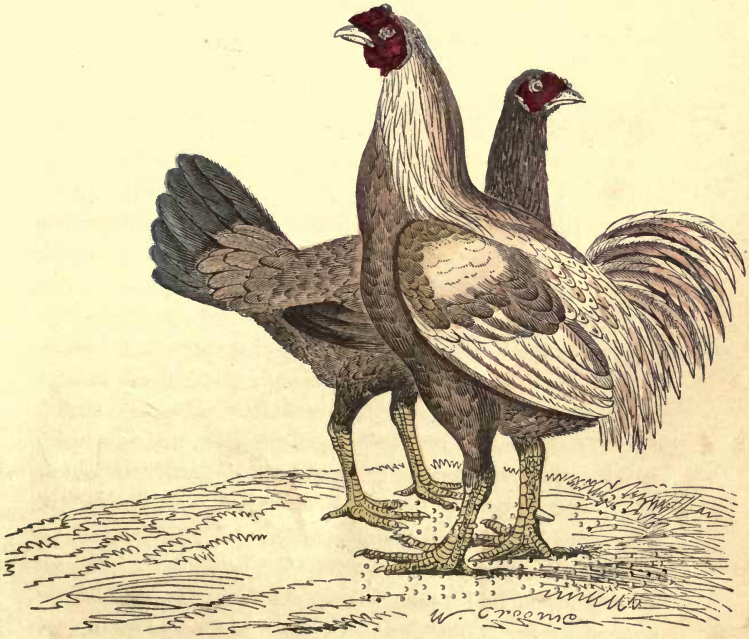
"I will endeavour to describe my China Cock. He is of not more than moderate size. His comb is single, erect, and finely serrated, his shawl-feathers of a brilliant gold-colour, reaching, when he stands up, nearly the length of his body, and joining, at that time, a few rows of feathers of the same colour, which extend to the tail, which is jet black, with the feathers finely curled and in moderate quantity; his body is of a brilliant chestnut-colour, his thighs and breast black, but spangled with pale chestnut patches. The thighs of both sexes are remarkably full-feathered, which gives them a great apparent breadth."

Another. "I lately saw a Chinese Cock, with a rose comb, and the plumage of the golden-spangled Hamburgh; his legs were yellow, or he might be taken for one of that breed." —*J. S. W.*

CHAPTER VIII.

THE MALAY FOWL—SOMETIMES (THOUGH ERRONEOUSLY) CALLED CHITTAGONG. *(See Portraits of each.)*

THIS is a majestic bird, and is found on the Peninsula from which it derives its name. Its weight, in general, exceeds that of the Cochin China, the male weighing, when full grown, from eleven to twelve, or even thirteen pounds, and the female from eight to ten pounds;—height, from twenty-six to twenty-eight inches. They present no striking uniformity of plumage, being of all shades, from black to white; the more common colour of the female is a light reddish-yellow, and I have observed a mere suspicion of dunnish-blue, especially in the tail. The Cock is frequently of a yellowish-red colour, with black intermingled in the breast, thighs, and tail. He has a small, but thick comb, as seen in the portrait, generally inclined to one side: he should be snake-headed, and free from the slightest trace of top-knot; the wattles should be extremely small, even in an old bird; the legs are not feathered, as in the case of the Shanghaes, but, like them and the Cochin Chinas, his tail is small compared with his size. In the female, there is scarcely any show of comb or wattles. Their legs are long and stout; and their flesh is very well flavoured, when they have been properly fattened; and their Eggs are so large and rich, that two of them are equal to three of those of our ordinary Fowls.



MR. E. R. COPE'S MALAYS.

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The Malay Cock, in his perfection, is a remarkably courageous and strong bird. His beak is remarkably thick, and he is a formidable antagonist when offended. His crow is loud, harsh, not prolonged, as in the case of the Cochin China, but broken off abruptly at the termination: this is quite characteristic of the bird.

E. R. Cope, Esq., of this place, has some beautiful specimens of the Malay, which he imported direct from the Messrs. Baker, of Chelsea, England, who warrant them perfectly pure, and good specimens. Mr. Cope kindly furnished the account of them in a preceding chapter.

Mr. Dixon says this breed is in high repute with many writers, as a supposed connecting link between the wild and the tame races of Fowls. Indeed, something very like them is still to be found in the East; and it would be useful to know, as a certain test, whether the Kulm Cock be indocile, like the Pheasant, or tameable, like the Fowl. The Penny Cyclopædia (article "Pheasant") gives the following description of the native Indian bird:—

"The *Gigantic Cock*, the *Kulm Cock* of Europeans, (a wild breed,) often stands considerably more than two feet from the crown of the head to the ground. The comb extends backwards in a line with the eyes; it is thick, a little elevated, rounded upon the top, and has almost the appearance of having been cut off. The wattles of the under mandibles are comparatively small, and the throat is bare. Pale golden-reddish hackles ornament the head, neck, and upper part of the back, and some of these spring before the bare part of the throat. Middle of the back and lesser wing-coverts deep chestnut, the webs of the feathers disunited; pale reddish-yellow, long drooping hackles cover the rump and base of the tail, which last is very ample, and entirely of a glossy green, of which colour are the wing-coverts; the secondaries and quills are pale reddish-yellow on their outer webs. All the under parts deep

glossy blackish-green, with high reflections: the deep chestnut of the base of the feathers appears occasionally, and gives a mottled and interrupted appearance to those parts." (*Jardine* principally.)

Here is a description of some Malay Fowl supplied by Messrs. Baker:

Malay Cock.—Height twenty-seven inches and a half. Comb small, double, hanging over on one side in front, and extended in a line backwards. Bill yellowish, feet and legs decided yellow; hackle greyish-yellow; breast, belly, and thighs black; back and shoulders rich brown; wing-coverts iridescent black; quill feathers the same, but having half of the outer web on one side of the quill mottled with white; wattles almost absent; tail iridescent black; stature lofty; voice particularly sonorous, and somewhat hoarse.

Malay Hen.—Comb very small, but face much covered with red skin. Bill, legs, and feet yellow; head, neck, back, tail, and quills of a rich brown; the lower parts and thighs of a lighter hue; neck long; stature and carriage lofty; head small in proportion to the size of the bird.

It may be suspected that Malays are underrated in importance by Poultry-keepers, as much as they are overrated by naturalists. The common prejudice condemns their flesh as coarse, stringy, oily, and ill-flavoured. But it is a question whether many of those who pronounce this unfavourable judgment have ever dined off so costly a dish as roast Malay Fowl. First-rate Malays are exceedingly dear in London. I have heard of as much as 5*l.* being asked for a superior Cock; but, then, he was to be "as big as a Donkey." It is odd, too, that what is so faulty in an unmixed state, should be highly recommended as a first cross. The yellowness of their skin may be displeasing to the eye of a purchaser; but many of the finest-flavoured Game Fowls have this quality, and both Pheasants

and Guinea Fowls, when plucked for the spit, are much more uninviting in their appearance. It will be a pity if the Malays go out of fashion altogether, and become lost to the country, like the Shackbags, in consequence of the introduction of the more bepraised, and, it must be confessed, much more generally useful, Cochin Chinas. The Poultry Shows, however, in which their striking appearance is so valuable, promise again to bring them perhaps into undue favour. They are certainly a very distinct race of Fowls.

The Malay Hen lays Eggs of a good size, and of a rich buff or brown colour, which are much prized by the numerous epicures who believe that this hue indicates richness of flavour—a fact which has not yet been made sensible to my own palate. The Chicks are at first very strong, with yellow legs, and are thickly covered with light-brown down; but, by the time they are one-third grown, the increase of their bodies has so far outstripped that of their feathers, that they are half naked about the back and shoulders, and extremely susceptible of cold and wet. The grand secret of rearing them, is to have them hatched very early indeed, so that they may have got through this period of unclothed adolescence during the dry, sunny part of May and June, and reached nearly their full stature before the midsummer rains descend.

The disposition of Malay Hens is very variously described: doubtlessly with truth in the different cases. One set—"long in the leg, creamy brown with darker necks, were very ill-tempered; another individual, of a rich creamy brown and grey neck, and very broad on the back, was an invaluable sitter and mother. They are much used by some to hatch the eggs of Turkeys, a task for which they are well adapted in every respect but one, which is, that they will follow their natural instinct in turning off their Chicks at the usual time, instead of retaining charge of them as long as the mother Turkey

would. Goslings would suffer less from such untimely desertion."

I cannot refrain from mentioning a singular habit that has been observed in some individuals of this breed: "A multitude of facts has convinced me how wonderful is the hereditary principle in the minds or instincts of animals; but some facts have made me suspect that we sometimes put down to hereditariness what is due to imitation. I will give an instance: a good observer and breeder told me he had noticed that an Eastern breed of Poultry, (Malay, I think,) imported by Lord Powis, though then reared during several generations in this country, always went to roost for a short time in mid-day," (of course, instinctively, to avoid the noontide heats at home.) "Hence (if the fact be true, and I rarely believe any thing without confirmation,) I concluded that this habit was probably hereditary; but, mentioning this fact to a lady who had some Eastern breed, she said she believed she had noticed the same peculiarity, but with this addition, that some chickens reared under the Eastern Hen followed (she knew not for how long) the same habit; if so, we clearly see that it may be a merely handed-down practice, and not hereditary. To test it, the Eastern eggs ought to have been hatched under a common Hen; but my first informant is now dead. This point, though trifling, is really curious."—*C. D.*

I certainly have noticed Hens of various breeds occasionally retiring to roost for a mid-day nap; but never knew any make a common practice of it. Domestic Fowls have this peculiar whim: when they are compelled, by rain, snow, or severe frost, to take shelter during the day, they do not retire to their dormitory, the hen-house, where they sleep at night, but prefer some other building to which they can have access and use as a drawing-room, and from which they will adjourn to bed, when the proper time comes.

"I saw a lot of Black Malay Hens in Hungerford market, and with them a red Cock with a black breast and tail; the quills of his tail were white. I was at first inclined to think that they had a cross of the Spanish; but when I recollected to have seen Fowls of exactly the same appearance, though somewhat smaller, in Devon, I changed my opinion."—*J. S. W.*

CHAPTER IX.

THE PHEASANT-MALAY FOWL.

This variety, together with some of the Hamburghs, may claim the sad pre-eminence of having given occasion to more disputes than any bird of its tribe, always excepting the Game Cock. It is highly valued by many farmers, not on account of its intrinsic merits, which are considerable, but because they believe it to be a cross between the Pheasant and the common Fowl, than which nothing can be more erroneous. The Pullets and Cockerels are excellent for the table, and, when brought to market, meet with a ready sale, less because they are really fine birds, than because the seller assures his customers, in perfect sincerity, that they are half-bred Pheasants; and the buyer readily pays his money down, thinking that he has got a nice Fowl, and a taste of Pheasant into the bargain—something like the Frenchman, who was delighted at breakfast, on finding that he was eating a little chicken, when he had only paid for an egg.

So gross an error in Natural History ought to be cleared away, as a belief in it might cause disappointment to Poultry-fanciers; and particularly since the able author of "British Husbandry" has given the weight of his authority to the notion. He speaks of the "hybrid between the Hen and the Pheasant having succeeded;" and adds: "Their flesh, however, has so much of the game-flavour of the Pheasant, coupled

with the juiciness of the Fowl, as to be greatly prized by connoisseurs in good eating; and therefore attempts are often made to propagate the breed by those who are careless of trouble and expense."—*Farming for Ladies.*

To prevent this trouble and expense being thrown away, it should be clearly known that the Pheasant breed* of Poultry-fanciers is no more a mule between the Hen and the Pheasant, than the Cochin China or Ostrich Fowl is a half-bred Ostrich, or than the Bustard breed of Turkeys sprang from a commixture with the great Bustard. Dr. Latham has an Owl-pigeon and a Turkey-pheasant on the same principle of nomenclature. The really half-bred Pheasant, which is indeed obtainable by trouble, expense, and, above all, by patience and perseverance, is not unfrequent in museums and collections. Any offspring of these mules is rare: so that no breed is originated; only a set of isolated monsters. Mr. Yarrell describes and figures several other mules between the Pheasant and one or two gallinaceous birds nearly allied to it. Those between the common Fowl and the Pheasant which I have seen, bore, in their outline, great resemblance to the genus Nycthemerus, the Golden and Silver Pheasants: thus supporting the position assigned to those birds by Mr. Swainson, namely, between the Fowls and the Pheasants. And the great and varied talents of that gentleman must claim respect from every student of Nature, even though they may not be complete converts to his circular system and quinary arrangement. But, in confirmation of his views, it may be urged that existence is not a chain, a simple series, as some have described it, but an infinite net-work, extending in all directions, developing itself, not superficially, but cubically, like the spherical undulations of light that flow from every fixed star. Each animated being is a portion of this net-work; and from each, as from a centre, may be traced affinities

* See infra, the synonyms of the Hamburgh Fowls.

and relationships to all surrounding beings that are endued with life.

The Nycthemerus and the mule Pheasant have tails more or less horizontal. The Hen of the Pheasant-Malay carries hers in a particular upright and hen-like manner; the Cock has the curved and flowing feathers of the tail, and every other mark of true Gallism. The Pheasant-Malay Hen has semi-oval markings on the breast, and shining blue-black hackle on the neck mixed with dark brown, which do bear some distant resemblance to the Plumage of a Cock Pheasant, and might give rise to the false notion of her origin; but a glance at the Cock bird shows how nearly he is related to the Game Fowl; a closer inspection shows the affinity of both to the ordinary Malays.

"Pheasant Fowls," "The Pheasant Breed," are terms which ought to be at once discarded, as being either erroneous or unmeaning, or rather both. By these terms various people intend to indicate Golden Hamburghs, Silver Hamburghs, Polanders, and even Bantams,* besides the subject of the present section. An eminent London dealer being asked what breed of Poultry he would supply, if the "Pheasant Breed" were ordered, replied, that he did not know; for some gentlemen so called one sort, and some another. Indeed, the name is vernacularly applied to any thing that bears the most distant resemblance to a Pheasant. It has first to be shown that there *is* a Pheasant breed of Fowls; every specimen so called, that I have hitherto seen, being referable to some one of the varieties mentioned in these pages.

To pass slightly over such a popular error would be wrong, because it involves the great question of the immutability of species. The result, then, of our inquiry is this; that hybrids

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* In Moubray's work, 8th edition, a coloured engraving of Seabright's Spangled is entitled, "Bantam, or Pheasant Fowls."

between the Pheasant and the Fowl are, for the most part, absolutely sterile; that when they do breed, it is not with each other, but with the stock of one of their progenitors; and that the offspring of these either fail, or assimilate to one or other original type. No half-bred family is perpetuated, no new breed created by human or volucrine agency.

Some believers in the improvement effected by Pheasants in our Common Fowls put their trust entirely in the *possibility* of the fact, not in any evidence of what has actually occurred. "One man, who had some of the birds near a wood, indeed assured me that the breed was easily reared, and that they grew more and more like Pheasants every clutch; but I noticed he had Hens of other breeds going with his Pheasant-mules or hybrids, male and female, and *he was not sufficiently intelligent to be fully depended on.* Besides, though his Cock and some of the Hens were undoubtedly (?) true hybrids, yet, as he lived close by the wood-side, it is most probable that, as in the former instance, the Cock Pheasant of the wood usurped the attentions of the whole sisterhood, thus accounting for the broods growing more like Pheasants every generation. The most successful breeder of them admitted that, after many trials (of paired hybrids), he had "never brought up but two to be a'most Hens," and that then they took the (meghrims) staggers and died."—*(Correspondent of the Agricultural Gazette, July* 1*st*, 1848.*)* Such naturalists as these have clearly got into a wood, and, are likely to ramble about therein so long a time, that it is hopeless to endeavour to extricate them.

Others say, "Consult some intelligent gamekeeper, and you will alter your opinions." Well, we are anxious only for the truth, and are ready to be convinced by any proved facts that a gamekeeper can produce. Accordingly, we have consulted M. Le Roi, gamekeeper to the King of *France*, not *of the French*, before the first revolution, when game was indeed preserved, and country gentlemen, almost as much as kings, when

they visited the country, really could keep poachers in awe. He informs us of his experience, thus:—"Man has tried to effect a violence with the Cock Pheasant, to make it breed with a foreign species; and the experiments have in some degree succeeded, though they required great care and attention. A young Cock Pheasant was shut in a close place, where but a faint light glimmered through the roof: some young Pullets were selected, whose plumage resembled the most that of the Pheasant, and were put in a crib adjoining that of the Cock Pheasant, and separated from it only by a grate, of which the ribs were so close as to admit no more than the head and neck of these birds. The Cock Pheasant was thus accustomed to see these females, and even to live with them, because the food was thrown into the crib only. When they had grown familiar, both the Cock and Hens were fed on heating aliments; and after they discovered an inclination to couple, the grate which parts them was removed. *It sometimes happened that the Cock Pheasant, faithful to nature, and indignant at the insult offered him, abused the Hens, and even killed the first he met with; but if his rage did not subside, he was on the one hand mollified by touching his bill with a red-hot iron, and, on the other, stimulated by the application of proper fomentations."—Buffon's Natural History of Birds*, vol. ii., p. 302. His note attached is,—"The Wild Pheasants never couple with the Hens which they meet; not but they sometimes make advances, only the Hens will never permit them to proceed. I owe this, among many other observations, to M. Le Roi, Lieutenant des Chasses at Versailles." A promising commencement of a new breed of Poultry!

But it might be objected that all this happened sixty or seventy years ago, and that the nature of Pheasants and Fowls has since been modified. We have therefore consulted another intelligent keeper, who knows as much about the subject as the best shot that ever handled a gun. On stating my opinion

of the absurdity of the popular notions about the "Pheasant Fowls" to Mr. James Hunt, the experienced servant of the London Zoological Society, he replied, "You are quite right, sir; those who think differently have only to look at that," pointing to a miserable, really half-bred Pheasant, that was then walking before us.

Nor does the experience of Mr. Hunt differ much from that recorded by his superiors. "Birds produced between the Pheasant and Common Fowl are of frequent occurrence. The Zoological Society have possessed several, which were for a time kept together, but showed no signs of breeding; they are considered, like other hybrids, to be unproductive among themselves, all being half-bred; but when paired with the true Pheasant or the Fowl, the case is different. The Zoological Society has had exhibited at the evening meetings two instances of success in this sort of second cross. The first was in 1731; the second instance in 1836."—*Yarrell,* vol. ii., p. 317. Two cases only, and those in the *second* cross, ascertained during all the time that the Society has had extraordinary means at command, are exceptions so rare as to confirm the rule that such mules are barren, and incapable of founding a family, and becoming the ancestors of a distinct race. And yet an evidently sincere writer declares,—"From what I have seen of the plumage of birds casually produced at the wood-side, (from crossing with Pheasants,) I believe a judicious and scientific selection would lead to the production of very fine varieties; and that, among others, the dark Pheasant-plumaged breed, both of Bantams, and common poultry, would reward the patient inquirer."—*Agricultural Gazette,* June 10, 1848. Patience may sometimes be its own reward; but it is a sad thing to get into a wood, if the German romancers are to be listened to.

Those who still believe in the permanent combination of the Pheasant with the Fowl, rest their faith entirely on the "pure half-bred" birds which they procure from the wood-

sides to begin with. But, we may ask, how do they know that they are really such? If they were only told by some man who lived by the wood-side, and reared them from one of his Hens kept there, that they were half-bred Pheasants, we must refuse to admit any such uncertain, hearsay evidence, as unworthy to have any weight in solving what is one of the most important problems (in its consequences) in Natural History. The Hen from which birds that can be allowed to be half-bred Pheasants are obtained, must have been confined for some time previously with a Cock Pheasant, and utterly debarred from the slightest possibility of association with the Domestic Cock. In short, the evidence ought to be as clear and unmistakeable as would be required in a trial for murder, or in a claim before the House of Lords to a succession to a dukedom. When we have truly and actually got what we are *sure* is a half-bred Pheasant, specimens of which, though unfrequent, are by no means rare, it then remains to be seen what becomes of them.

Mr. John Bailey favours me with one instance of their probable destiny. "Hybrids between Fowls and Pheasants are not at all uncommon, when such birds, tame-bred, are kept together in a pen. For instance, a tame-bred Cock Pheasant will breed with a game Hen, but I do not believe the stories of wild Pheasants visiting the ordinary inhabitants of farm-yards. I have had numbers of such miscalled Hybrids brought to me, to prove by ocular demonstration their claim to unnatural origin; but the first sight proved the reverse; they were simply Spangled Fowls.

"I have had many Hybrids. They are of all colours, but, generally, the back and wings are chocolate-coloured; the breast, hackle, and tail, black, and the legs dark. In carriage they more resemble the Pheasant than the Fowl; they are tame, sheepish-looking birds, having neither comb nor gill, and no distinctly-coloured circle round the eye. The tail-

feathers are longer than those of a Fowl, although not shaped like a Pheasant's; and the tail itself is carried more erect than a Pheasant's.

"It has always been my impression, that the production of such a creature, however much coveted as a curiosity, will always be regretted, when its tame, stupid, listless air, and positive uselessness, is considered in comparison with the magnificence of the Pheasant, and the courage and beauty of the Fowl. I had one of them running with common Hens for two or three years. I had a basket nailed against the wall, for the Hens to lay in. There was a tree close to it. The unhappy Hybrid, as though aware of his anomalous position in the scale of creation, and anxious to redeem it in some way, patiently waited for the Hens to lay, and then began zealously to sit on the Eggs. This lasted for months; and his (should it not be 'its'?) grief was visible whenever the Egg was removed."

The Pheasant-Malays are large, well-flavoured, good sitters, good layers, good mothers, and in many points an ornamental and desirable stock. Some hypercritical eyes might object to them as being a little too long in their make; but they have a healthy look of not being over-bred, that would recommend them to those who rear for profit, as well as pleasure. The Eggs vary in size, some very large in summer, smooth but not polished, sometimes tinged with light-buff, balloon-shaped, and without the zone of irregularity. Six Eggs in December, 1847, weighed very nearly twelve ounces. The Chickens, when first hatched, are all very much alike; yellow, with a black mark all down the back. The Cock has a black tail, with black on the neck and wings.

I have been favoured with a communication from Mr. A. Whitaker, of Beckington, Somerset, whose observations on domesticated birds I know to be so accurate as to render him an authority. He says, "I do not feel quite certain as to the

particular sort of birds indicated under the title of the 'Pheasant Breed.' I have seen so many and such diverse sorts called Pheasant Fowls, that I have long since ceased to attach any definite idea to the designation. I fully concur in all you say in contravention of the popular notion of the existence of a prolific Hybrid between the Fowl and the Pheasant.

"I have for seven years had a breed of Fowls, the progenitors of which were sold to me in Hungerford market as 'Pheasant-Malays.' The Cocks are a large-sized bird, of a dark-red colour, with a small comb; but the beauty of the breed is with the Hens, which are of a Pheasant colour in all parts of the body, with a velvety black neck. The shape of both male and female is good. The neck is long and (as we should say of a horse) high-crested, giving them an appearance quite superior to other Fowl in that particular. The colour of the Hens varies from the warmth of the plumage of the Cock Pheasant, to the colder hue of the Hen Pheasant, but as I have always bred from the high-coloured birds, I now have the better colour generally predominating. The legs are white, and also the skin. They are excellent birds on the table, both as to quality, shape, and size. They have no resemblance to the Malay, except that the Cocks are rather high on the legs, the Hens being the reverse. The combs of the Hens are very small. The Hens never have a foul feather, but I have never seen a Cock which does not show some small mark of white on one of his tail-feathers. You will observe in the Hens of the Pheasant-Malay that the two longest tail-feathers are somewhat curved, which, when the bird is full grown, and in full feather, materially improves the appearance. They do not arrive at their full size until the second season. They lay well, but late. Their Eggs are very small in proportion to the size of the birds. I should say that their weight was, on the average, above that of the Black Spanish,

while their Eggs are a third smaller. Baker, of London and Chelsea, (one of the best fancy dealers,) told me that they were a breed from Calcutta. They are certainly tender, and are apt to die in moulting; but the Hens, in my opinion, are unrivalled in beauty, while the Cock is a fine bird, though not so uncommon in appearance, except to an experienced eye, which will detect peculiarity of growth.

"If you do not know the Pheasant-Malays, (which is merely a market name,) I will send you with pleasure a Pullet and a late Cockerel. I am sorry that I cannot send an earlier Cock bird, as I apprehend that now sent will not attain average size. The plumage of the Pullet promises well. The Hens have scarcely any comb. The Cocks always have a comb extending but a very little way backward, but standing up so high as always to fall a little over on one side. I have never seen any variation as to the combs or the colour of the neck and tail-feathers, either of males or females, which indicates them to be a real variety. The only variation I have observed is in the body-colour of the Hens, and this not in the marking, but merely in the ground colour, which is sometimes paler and duller than is the case with the Pullet I send. I would most cheerfully enclose some Eggs, but I have none, as they very rarely lay in winter. The Eggs are quite small, but of excellent flavour, neither very white nor brown; the shape varies considerably. The Chicks are of a yellowish colour, with sometimes two brown stripes down the back and a few specks about the head, but more usually without either. They have, however, invariably the hinder part of the back of an intenser or browner yellow, almost amounting to a warm fawn-colour. I think that the Chicks should not be hatched before May."

The birds thus kindly offered were thankfully accepted; and, after a railway journey of more than two hundred and fifty miles, stepped out of their hamper uncramped, uninjured,

and undismayed by curious inspectors, and with evidently an appetite for breakfast. The Pullet was certainly a great beauty; and I was pleased to find them of the same type as the "Pheasant Breed" with which I had been previously acquainted. Their richness of colour, and increase of size, being the result of skilful selection and feeding for several generations. The colour of the legs being quite white, did not agree with the Norfolk specimens, but the several varieties of Game Fowl exhibit much greater differences among each other. However, I now quite believe that the Norfolk specimens I had seen, had a dash of the blood of that variety of Hamburgh Fowls known as Copper Moss. This comparison of individuals, bred more than three hundred miles apart, establishes the existence of the Pheasant-Malays as a permanent variety of Fowls. The only discrepancy, which is more apparent than real, lies in the varying size of the Eggs; but I have seen so many changes in that respect in the same Hen, under altered circumstances, as to attach no importance to variation of size, unless shape and colour were also found to be different.

The Cocks display considerable courage; the Hens are jealously affectionate towards their Chicks, bustling, and petulant, thus exhibiting in disposition an affinity to the Game breed.

Mr. Whitaker adds: "My male birds have a very peculiar feathering on the neck—the neck feathers being very long and full, dark-red, and black at the tips, but the under part of a downy white. The consequence is an appearance of mixed dark-red and white about the neck, which is the more peculiar from its being so particularly at variance with the glossy black neck-feathering of the female. The feathering of the back and wings is rather scanty, and the tail is not very full. The bird has a good, erect carriage.

"The Chickens hatched in June always succeed better than

those that are hatched earlier. The Chickens of this breed are very small at first, and but scantily supplied with down. As they begin to grow, they have a very naked appearance, from the slow development of their feathers, and this renders them very susceptible of cold. At six weeks old they are not above half the size of Dorkings of the same age, but after two months they grow very fast, and the Pullets feather well and show indications of their permanent colour. The Cocks are ragged in appearance until five months old, after which they get their permanent plumage, and grow fast. As a sort of profitable growth, I cannot recommend them, but the ornamental figure and colour of the Hens, I think, is beyond question. The flesh, at table, is extremely good and white; and they lay abundantly, though late. I have a strong suspicion, from various peculiarities, that they are of comparatively recent introduction into this country, from a much warmer climate.

"I once attempted to describe to you an oval abortion: I have since found a second, in which the similarity was complete. The upper Egg, which was concealed within the other, below the unclosed orifice left at the egg-stalk, was conjested with blood in both cases, while the lower egg or yolk (there being two in each case within the shell) was quite natural. A fortnight after I found the latter abortion, I looked into the same nest, and saw there one of my Pheasant-Malay Pullets of last year. On looking closely at her, I saw she was dead; and on opening her, another of these abortions was seen, accompanied by general congestion of the ovarium and a vast quantity of internal fat, which I find these birds very much disposed to take on."

It is a common opinion among country-people, that misshapen Eggs care caused by the Hens that lay them being too fat. It certainly does often happen that an over-fat Hen lays deformed Eggs, but I believe that the cause has been mis-

taken for the effect; and that the non-production of the usual quantity of natural-sized Eggs, in consequence of some peculiar state of the egg-organs, compels the superabundant nourishment taken by the bird, to be deposited in the shape of fat, instead of being secreted in the form of Eggs.

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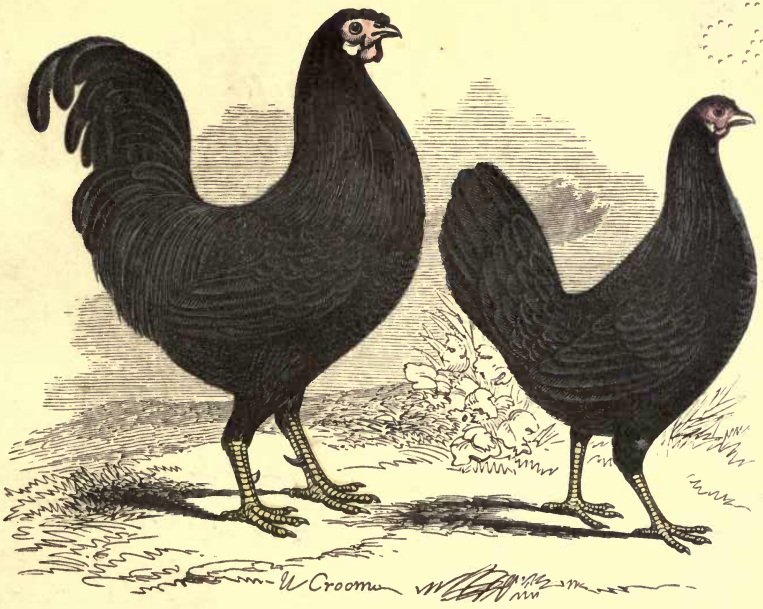


MR. H. L. DEVEREUX'S GUELDERLAND FOWLS.

CHAPTER X.

THE GUELDERLAND FOWL.

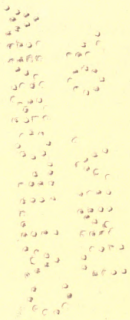
This Fowl would seem to be quite an original one. There is still less development of comb than in the true Malay; the wattles, however, are more freely developed than in the latter.

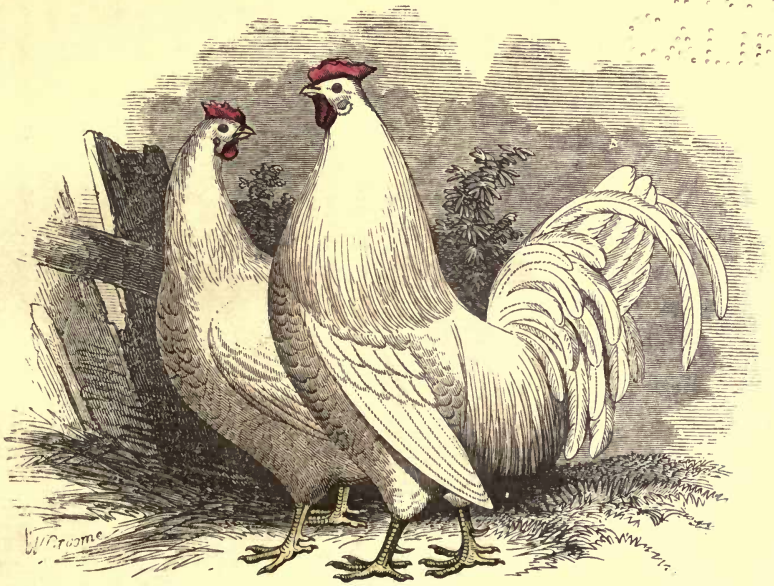
A gentleman of Boston, who has some fine specimens in his possession, writes me, concerning them, as follows: "The Guelderlands, about which you inquire, are a breed of Fowls introduced into this section by Captain John Devereux, a brother of the Mr. D. who visited you a few days since. This breed is of a jet-black plumage, without combs, the Cock sometimes showing two small red warts. The wattles are small, particularly so in the Hen; the body is short and plump; the legs are very long, compared with the body, and are thinly covered, on the front and outside, with thick and stiff quill-feathers, extending to the toes. The Eggs are large, white, and oval in shape, and are very rich and palatable. The Hens are not great layers nor sitters; at least, they have not proved so with me. The flesh I have not tried."

I have also been kindly furnished, by H. L. Devereux, Esq., of Dedham, Mass., with the following account. He says, "This splendid breed of pure black Fowls has never, to my knowledge, been described in any of the poultry-books published in England or this country. They were imported from

the north of Holland, in the month of May, 1842, by Captain John Devereux, of Marblehead, Mass., in the ship Dromo, on his voyage from Amsterdam to Boston; and, since that time, have been bred by him at his place in that town, entirely distinct from any other breed. They are supposed to have originated in the north part of Holland. The plumage is of a beautiful black, tinged with blue, of very rich appearance, and bearing a brilliant gloss. They have no comb, but a small indented, hard, bony substance instead, and large red wattles. Their legs are of a shining black, smooth, and without feathers, except in a very few instances. Dr. B., in his work, is by some means led into error; where the legs are "*heavily feathered*," I am inclined to believe they have been crossed with the Shanghae; such crosses I have seen. Out of a flock of some twenty or thirty, you may perhaps see some two or three slightly feathered upon the legs. Such is the fact with regard to those bred in our yard from the old imported Fowls. Their flesh is white, tender, and juicy; they are of good size, great layers, seldom inclining to sit, bright active birds, and are not surpassed, in point of beauty or utility, by any breed known in this country. The uniform aspect which is observable in their progeny is a proof of the purity of the breed."

The portraits were obligingly furnished by H. L. Devereux, Esq., and represent a pair of these beautiful Fowls now in his possession. He says, "The proof-impression of the Guelderlands I send you, is as good as can be done in Boston, and is, I think, quite correct, except the feathered legs, which ought, to answer the true description, be smooth."





DR. EBEN WIGHT'S WHITE DORKINGS.

CHAPTER XI.

THE DORKING FOWL.

THIS has been called the Capon Fowl of England. It forms the chief supply for the London market, and is distinguished by a white or flesh-coloured smooth leg, armed with five, instead of four toes, on each foot. Its flesh is extremely delicate, especially after caponization; and it has the advantage over some other fowls of feeding rapidly, and growing to a very respectable size when properly managed. The weight to which they sometimes attain goes much beyond that recorded by Mr. Dixon. Indeed, the weight given by him for first-class birds seems ridiculously small in comparison with that given by some others. Mr. Nolan, of Dublin, remarks, that "the humblest cottager in Ireland would smile at the idea of a learned English ornithologist, stating that his specimens of fine Dorking Fowl weighed only 7 lbs. each, while our road-side birds can be had from 7 to 9 lbs." Mr. Nolan, I think, is disposed to be a little sanguine, as we do not often meet with "road-side Fowls" whose weight is as he states. A 9 lbs. bird, of any breed, is a sturdy fellow. But hear what he says of the weight of his own Dorkings. He says that he has a Cock in his possession, "*out of condition* and in *heavy moult*, which weighs 10¼ lbs.; if fed, and over moult, he would be

birds are extremely difficult to be had, as we found to our cost when in England, and it was only by special favour we procured some at last.

"Capt. Morgan has been upwards of two years endeavouring to obtain this importation, and finally succeeded only through a worthy clergyman, Mr. Courtney, of the town of Dorking, a passenger with him on a recent voyage home from the United States.

"He accompanied them by a note, apologizing for the high price he had to pay, and further saying—'The Chicken-breeders of Dorking have adopted a sort of *principle*, that they will send away no birds *alive*, except capons, as they desire to retain them, as much as possible, among themselves, in which, by caponizing, they carry on quite a profitable trade; and they can only be had as a particular favour.'"

The pair of Fowls figured, were about two years old when drawn, and, as a consequence, show a more full development than would those of a less mature age. The weight of the Cock was 8½ lbs., that of the Hen fully 6½ lbs. When caponized, this breed has been known to weigh 9 to 12 lbs.

Of this breed, Dickson, on Poultry, (1847,) says:—"These Fowls, (Dorkings,) which form the principal supply for the London market, are distinguished by having five toes, instead of four, on each foot. Their flesh is extremely white, succulent, and delicate, and they have the advantage of feeding rapidly, and growing to a very large size when properly managed. Capons and Poulards, though by no means so common in England as in France, are sometimes made of these Fowls, which, when caponized, grow to an enormous size; a well-fed Capon having been known to weigh 15 lbs.!

"The feathers of the Dorking Fowls are almost always white, and the legs are short, white, and remarkably smooth."

They have large plump bodies, with a broad full chest, like the Partridge, and in this peculiarity hold the rank among

Poultry which the Durhams do among cattle. When produced at the table, there is no other breed I have seen equal to them. They are also good layers, producing a good-sized clear-white Egg, and, as sitters and mothers, cannot be surpassed by any breed of Fowls.

No sure criterion is found in the appearance of five toes, as has been stated. But where it is not found, I should apprehend a "cross." To describe a true Dorking is difficult, although a breeder could at once recognise one.

Several writers state that they are long in the body. But that is only true while they are young. As they come to maturity, the other parts are filled up, and they appear more like the form of a Linnet than any other bird.

The prominent points are these: a fine head, with brilliant, reddish-tinged eyes—by some, termed ferret-eyed; single or double comb, in both sexes; a graceful neck, rather short than long; wide, deep, projecting breast; the body is not only long, but is round, rather than flat or square; and the legs, considering their size, short, and invariably of a silvery white.

I may add, that when crossed with other breeds, they invariably improve the form; and while the quality of the meat is improved, the amount of offal is much reduced.

They are a hardy bird, and their young easily reared—a fact of great importance in this climate.

That the Chinese possess a race of Fowls which have the fifth toe, as fully developed as in the Dorking, is proved by the fact, that I have in my possession a pair which were sent from Nankin, (and arrived here in March, 1850,) as choice specimens, having a snow-white plumage and other characteristics of the true Dorking. The plumage, toes, the shape and colour of the Eggs, lead me to believe that the Dorkings originated in that section.

EBEN WIGHT.

Dedham, Mass., Dec. 5, 1850.

Mr. Dixon remarks, on the subject of Dorkings:—For those who wish to stock their poultry-yards with Fowls of the most desirable shape and size, clothed in rich and variegated plumage, and, not expecting perfection, are willing to overlook one or two other points, the Speckled Dorkings* are the breed to be at once selected. The Hens, in addition to their gay colours, have a large vertically flat comb,† which, when they are in high health, adds very much to their brilliant appearance, particularly if seen in bright sunshine. The Cocks are magnificent. The most gorgeous hues are frequently lavished upon them, which their great size and peculiarly square-built form display to the greatest advantage. The breeder and the farmer's wife behold with delight their short legs, their broad breast, the small proportion of offal, and the large quantity of good profitable flesh. When fatted and served at table, the master and mistress of the feast are satisfied. The Cockerels may be brought to considerable weights, and the flavour and appearance of their meat are inferior to none. Those epicures who now and then like a Fowl killed by dislocation of the neck without bleeding, (the more humane way,) will find that this variety affords a tender and high-flavoured dish. The Eggs are produced in reasonable abundance, and, though not equal in size to those of Spanish Hens,

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* So called from the town of Surrey, which brought them into modern repute.

† A question has been raised, at some Poultry shows, whether the Dorkings should be imperatively required to have a single, or a rose comb. Neither form ought to disqualify birds true in other respects; but we should decidedly prefer to make the acquisition of single-combed specimens, both as marking their relationship to the Cochin China, previously noticed, and as saving them from the suspicion of a cross with either the Malays or the Hamburghs, which a rose comb is apt to induce. The finest White Dorkings that have come under our notice have always had single combs.

may fairly be called large. They are not everlasting layers, but at due or convenient intervals manifest the desire of sitting. In this respect they are steady and good mothers, when the little ones appear. They are better adapted than any other Fowl, except the Malay, to hatch superabundant Turkey's Eggs. Their size and bulk enable them to afford warmth and shelter to the Turkey-poults for a long period. For the same reason, spare Goose's Eggs may be intrusted to them; though in this respect I have known the Pheasant-Malays to be equally successful.

With all these merits they are not found to be a profitable stock if kept thorough-bred and unmixed. Their powers seem to fail at an early age. They are also apt to pine away and die just at the point of reaching maturity. When the Pullet ought to begin to lay, and the Cockerel to crow and start his tail-feathers, the comb, instead of enlarging and becoming coral-red, shrinks and turns to a sickly pink, or even to a leaden hue; and the bird, however well-fed and warmly housed, dies, a wasted mass of feathers, skin, and bone. It is vexing, after having reared a creature just to the point when it would be most valuable for the table or as stock, to find it "going light," as the country people call it; particularly as it is the finest specimens, that is, the most thorough-bred, that are destroyed by this malady. I do not believe that the most favourable circumstances would prevent the complaint, though unfavourable ones would aggravate it, but that it is inherent in the race and constitution of the birds. They appear at a certain epoch to be seized with consumption, exactly as, in some unhappy families, the sons and daughters are taken off all much at the same age. In the Speckled Dorkings the lungs seem to be the seat of disease, and it is to be regretted that no dissection was made in cases where I had the opportunity.

A gentleman who has kept this breed of Fowls for nearly twenty years, suggests that the foregoing remark ought to be

taken as the exception, and not the rule; of course it must, otherwise the whole race would have long since been extinct. Moreover, a degree of robustness and fecundity, which would be pronounced considerable in Curassows or Pheasants, may justly be called feeble in Cocks and Hens. The same word will have a different measure of force when applied to different objects. He says, that having been careful to introduce a fresh, well-selected Cock-bird or two into the walk, every second or third year at farthest, he has found the race uniformly hardy, healthy, and prolific. The remedy is one of the best that can be devised; but the necessity for adopting it confirms, instead of disproving our opinion, that the Cocks of this breed are deficient in vigour. However, Mr. Baily, of Mount Street, observes, as the result of his long experience, "A general remark I would make on Fowl-breeding is, that no one judges fairly of a breed, or sufficiently tries his opinion, if he has for two years been breeding in and in; and it is not enough to say in defence of the sweeping condemnation of a race, that he has only bred two years from the birds, and consequently not long enough for the evil to show itself; he must first inquire whether there was relationship in the stock he began with; perhaps he had a Cock and Pullet brother and sister from a friend or dealer, the progeny of similar relations, and from a yard where a change of stock was absolutely necessary when these were disposed of: he would thus unwittingly be carrying on the unfortunate process, and honestly, though mistakenly, consider *that* a defect in the constitution of the Fowl, which is, in truth, a mal-practice of the owner of it." There is certainly great force in the caution: the Poultry-shows, with compulsory sales, now coming into fashion, offer one means of remedying the evil.

We are inclined to think that, for persons who live in grassy and thick-wooded situations, long-legged Fowls are preferable to short-legged breeds like the Dorking, they being carried

higher above the damps and dews, besides having a longer leverage of limb (if such an idea is not altogether fanciful) to assist them in scratching for the worms and insects with which such localities abound. For instance, the average success of many country-people in rearing young Turkeys, is greater, all along, than that with Chickens.

Such people as are careless about seeing the full complement of five toes, are advised to try the Surrey Fowls, a nearly allied breed, or, as some call it, an improvement of the Dorking. They are a very fine variety, and may be had genuine from any of the respectable London dealers. The Old Sussex, or Kent, are closely related to these, if not absolutely identical.

But the serious and fatal maladies of Fowls are difficult to trace to their cause, and still more difficult to cure by the application of any remedy. It is unnecessary to more than allude to the volumes of absurd, irrational, and impracticable directions that have been printed on the subject. Many illnesses which we suppose to be of natural and spontaneous origin are, there is no doubt, brought on by the neglect and cruelty of boys and servants. Our domesticated animals are dumb; they cannot tell their master what ill-treatment they have received in his absence; and they often severely, cruelly, suffer the displeasure of some ill-natured underling, who dare not show his temper in higher quarters. Many a fancied or real wrong has been expiated by the Horse, the Dog, the Cat, or the Poultry. Nay, there is no concealing it, and mothers should listen to it, and think of it, as a motive to keep their lips guarded and their brow serene—many a harsh word spoken in a moment of irritation has been revenged in shakes and pinches upon the helpless infant.

In a communication with which I have been favoured by Dr. Bevan, the able author of the "Honey Bee," he says, "Just about roosting-time, one of the Cocks (of a very choice

breed) was found apparently lifeless at the back-door, lying on its side, as though it had been knocked down, which I really believe it had. I brought it to the fire, and placed it in a basket of hay. It soon began to move, and became violently convulsed." The worthy Doctor made a correct diagnosis of the malady, and so avoided the mortification of administering a long list of nostrums in vain. Some years ago we had a most beautiful Dorking Cock, the admiration of ourselves and of all who saw him. After a time he became ill, weak, and dejected; got worse, and died. Every ordinary comfort and care were afforded, but we did not try any of the extraordinary recipes that are current.

By-and-by the discovery of cruel treatment to my pony elicited the fact that the stable-boy was in the habit of making the Cock "drunk;" a process which is effected by seizing the bird by the legs, and whirling him round and round in the air, till the centrifugal force shall have sent the blood to the head, and produced apoplexy. The amusement consists in seeing the Cock stagger and reel when placed upon the ground, and gradually recover as it unsteadily walks off. "Tipsy Hen" is an agreeable variation of the sport. The cook had seen, and was indignant; but the lad's mother, when he entered my service, had, like the enchantress of romance, given her son a word of power. To the angry threat of the cook that she would tell of the atrocity, it was replied, "If you do, *I* will tell that every time it is your Sunday out, you go to see the little boy you had two years ago." Cook was thunderstruck at the mention of her "misfortune," and was tongue-tied. And so the machinery of households goes on.

I have subsequently found that, in all cases of suspicious death, the surest way of coming at the truth, and preventing further mal-practices, is to hold a formal inquest, with a post-mortem examination, and, after a deliberate investigation, to punish firmly by rebuke or dismissal, any outrage on the laws of humanity.

Well might Aldrovandi caution his poultry-loving readers: "Therefore, he who wants to enjoy a profit from these birds ought, in the first place, to select some faithful body. For, unless he who has the care of the Hens remains honest towards his lord, the gain will not cover the expenses. An attendant of this sort, namely, who climbs into the hen-house, and collects the Eggs, and turns by hand those which are incubated, will rightly be called the Hen-keeper, or Guardian."

As to the casualties arising from the neglect or ill-temper of servants, every farmer who has live stock to be tended, has had abundant proofs. There is a peculiar idiosyncracy in some individuals, which fits them to take charge of certain animals. Some female servants in the country have quite a passion for bringing up poultry, and by their care and kindness will rescue apparently moribund Chickens and Turkeys from the threatening jaws of death. A groom or stable-man almost always despises poultry. A gardener thinks it beneath him to look after them. Even in public Menageries the man who has charge of a Lion deems it a condescension to tend a few harmless birds. A clever little girl often makes an excellent poultry-tender: boys are as mischievous and untrustworthy as monkeys. When there is any thing in hand requiring peculiar watchfulness, it is not a bad plan, if possible, to attend to it one's self.

Pure Dorking Hens are sometimes barren. I had one, a perfect model to the eye, short, square, compact, large, with plumage, comb, and weight all that could be wished—the very Pullet that a fancier would have chosen to perpetuate the breed. But she never laid, nor showed any disposition to sit, and, in consequence of her uselessness, at about two years old was brought to table. The carving-knife soon demonstrated a mal-formation of the back and side bones, and showed that the models of the breeder may sometimes be too highly finished. This certainly might be a case of breeding in-and-in. But the

Cocks, with all their outward trappings and sturdy build, I must suspect to be deficient in vigour. If many Hens are allowed to run with them, clear Eggs will disappoint those who want large broods of Chickens. Three, or at most four, Hens to a Cock will give the most successful results.* These and a few other apparently trifling facts seem to show that with the Speckled Dorkings (a variety of great antiquity) the art of breeding has arrived at its limits. That it has limits is well known to persons of practical experience. Sir J. S. Sebright says, "I have tried many experiments for breeding *in-and-in*" (for the sake of developing particular properties) "upon Dogs, Fowls, and Pigeons: the Dogs became, from strong Spaniels, weak and diminutive lap-dogs; the Fowls became long in the legs, small in the body, and bad breeders."

"There are a great many sorts of fancy Pigeons; each variety has some particular property, which constitutes its supposed value, and which the amateurs increase as much as possible, both by breeding in-and-in, and by selection, until the particular property is made to predominate to such a degree, in some of the more refined sorts, that they cannot exist without the greatest care, and are incapable of rearing their young without the assistance of other Pigeons kept for that purpose." —*The Art of Improving the Breeds of Domestic Animals*, p. 13.

As mothers, an objection to the Dorkings is, that they are

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* Chaucer's Cock Chaunteclere, who was probably a Golden Hamburgh, had a larger allowance:—

> "This gentil cok had in his governance
> Seven hennes for to don all his plesance,
> Which were his susters and his paramoures,
> And wonder like to him as of coloures,
> Of which the fairest, hewed in the throte,
> Was cleped faire Damoselle Pertelote."
>
> *The Nonnes Preestes Tale.*

too heavy and clumsy to rear the Chicks of any smaller and more delicate bird than themselves. Pheasants, Partridges, Bantams, Guinea Fowl, are trampled under foot and crushed, if in the least weakly. The Hen, in her affectionate industry in scratching for grubs, kicks her lesser nurslings right and left, and leaves them sprawling on their backs. Before they are a month old, half of them will be muddled to death with this rough kindness. In spite of these drawbacks, the Dorkings are still in high favour; but a cross is found to be more profitable than the true breed. A showy, energetic Game-cock, with Dorking Hens, produces Chickens in size and beauty little inferior to their maternal parentage, and much more robust. Everybody knows their peculiarity in having a supernumerary toe on each foot. This characteristic almost always disappears with the first cross, but it is a point which can very well be spared without much disadvantage. In other respects, the appearance of the newly-hatched Chicks is scarcely altered. The eggs of the Dorking Hens are large, pure white, very much rounded, and nearly equal in size at each end. The Chicks are brownish-yellow, with a broad brown stripe down the middle of the back, and a narrower one on each side; feet and legs yellow.

Of this breed Mr. Alfred Whitaker thus expresses his opinion:—"I agree with you fully as to the usefulness of this description of Poultry, but I do not view them exactly through the same medium as to their beauty. Compared with the Pheasant-Malays, they are short-necked, and there is no arch or crest to the neck. Their colours vary from a streaked grey to a mottled or spotted brown and white. A neighbour here has some of the finest I ever saw; the Cocks with very full double combs, and the Hens generally with reddish-brown spots on a white ground. To my eye the Cocks look heavy and stupid, neither the head nor the tail being usually carried in an erect position, or with any semblance of spirit. As regards

size, they are magnificent. I saw one on my friend's dinner-table three days since, quite as large as an ordinary Hen Turkey; it was a cockerel about seven months old. My experience of their laying and breeding qualities agrees mainly with your statement, except that I should lay still stronger emphasis on their fatal clumsiness as mothers, which I am inclined to think is aggravated by their extra toe behind, and the great length of their back-toes. They frequently trample to death their Chickens during the process of hatching, and in a small coop they demolish them at a fearful rate. I think they never should be cooped with their chickens: but a still safer course would be to hatch the Eggs under a mother of a less rough physique, or perhaps by Cantelo's hydro-incubator." The only question is, how the Hen is to be employed when the sitting fit comes on, for they are most persevering sitters. I have successfully hatched both Turkeys and Geese under Dorking Hens. The latter will stand a great deal of trampling and kicking about without taking much harm from it. Mr. Whitaker continues, "I have crossed the Dorkings with Pheasant Malays. The first cross produces a fine bird, which is large, though not prolific; but if you were to cross the breed with each other, they dwindle to nothing. The doctrine of breeding is yet ill understood. I am disposed to think that, where you have a real variety, breeding in is the natural and best mode of procedure; but that, when you cross two thorough breeds, you have no guarantee that the cross breed will be good further than the first result."

It is a question how the Speckled Dorkings were first introduced. Some maintain that the pure White Dorkings are the original breed with five toes, and that the Speckled Dorkings is a recent and improved cross, by which the size was much increased, between the original White breed and the Malay, or some other large stock of poultry. From this opinion I must entirely dissent, on the ground of strong, though not ab-

solutely conclusive, evidence to the contrary. It seems to me that Columella's favourite sort of Hen could not differ much from our Speckled Dorkings. He says, "Let them be of a reddish or dark plumage, and with black wings. . . . . Let the breeding Hens, therefore, be of a choice colour, a robust body, square built, full breasted, with large heads, with upright and bright red combs. . . . . those are believed to be the best bred which have five toes," &c. Except that there is no mention of speckles, (and he never describes minute markings,) the whole description almost exactly tallies with our birds of the present day. Pliny's account agrees with this: "Superiority of breed in Hens is denoted by an upright comb, sometimes double, black wings, ruddy visage, and an odd number of toes." Lib. x. c. lxxvii. It appears that Columella *had* the White sort, but he rejected them; for he advises, "Let the White ones be avoided, for they are generally both tender and less vivacious, and also are not found to be prolific"—faults which are still attributed to them. I cannot, therefore, avoid believing that from the robust, dark-coloured, five-toed Fowl, white individuals have been from time to time produced and propagated, exactly as we see in other species of Gallinaceous birds that, have long been in domestication—Pea Fowl, Turkeys, and Guinea Fowl, for instance; and as the white variety of these is mostly smaller and more delicate than birds of the normal plumage, so the White Dorkings are inferior in size, and perhaps in hardihood. I think also that there is no instance of any white species of Cocks and Hens having been found wild, (except the Silky Fowls, and those are separated by Temminck into a distinct species;) which is some argument that dark and gaudy colours are the hues originally characteristic of the genus.

COLOURED DORKINGS.

An esteemed correspondent writes to the Editor as follows, concerning the above-named variety:—

You ask my opinion, whether or not the Coloured, Speckled, or Gray Dorkings, are thorough breeds? I consider them mongrels. I have seen many Fowls in this vicinity, which were imported from England and Ireland under these names. I have never known an instance in which the progeny has been like the imported Fowls. I think the only colour which is thrown by the thorough-bred Dorking is white, with white bill and legs, and a supernumerary hind-toe. The hind-toes have a peculiar form and shape in the thorough-bred White Dorking, which are not shown in the Coloured Dorkings.

The white breed of Dorkings have, to my knowledge, been bred "in-and-in" without any variation of these peculiar marks, and without the slightest change in colour. The Coloured, Speckled, and Gray Dorking have not produced their like in any instance, but have reverted to the different breeds from which they were derived.

The great and well-deserved reputation which the breed of Fowls known as Dorking Fowls, has acquired in England, arises more from the superiority of its flesh over that of other Fowls, than from its beauty of form, splendor of plumage, the quality or size of its Eggs, or the weight of its body.

In the markets of London, Fowls with white legs and five toes would always find purchasers, on account of the well-known richness and flavour of the flesh, whatever might be its size, whether caponized or not. And as large Fowls commanded much larger prices than small ones, the breeders have been induced to increase the size of the Fowls, retaining as much as

possible those peculiar characteristics, viz., the white legs and the five toes, even at the risk of sacrificing the good qualities of the flesh. For that purpose the Chittagong Fowl has been used to cross with the White Dorking, on account of the near resemblance of the colour of the legs and the great weight to which the Chittagong Fowl attains.

That the colour of the Dorking Fowls was white, abundant proof is furnished by Moubray, W. B. Dickson, and others. Mr. James Main, who, early in this present century, published a book on Poultry, says, "The most valued variety for the table, at present, is the *Dorking breed.* This is pure white, and highly esteemed for the whiteness and delicacy of their flesh, when served at table. They also fetch a higher price at market. Among breeders, real Dorking Cocks sell for from five to ten shillings each."

That the pure Dorking Fowl has become extinct, or nearly so, in England, I will quote from a work on Poultry, written by W. C. L. Martin, one of the scientific officers of the Zoological Society of London, who, speaking of the Dorking Fowl, says, "Surrey is noted for its Fowls, especially that breed which passes under the name of Dorking, and which is cultivated in the district surrounding that celebrated town. The Dorking Fowl is a short-legged, plump, round-bodied Fowl, remarkable for having five toes, that is, a supernumerary hind-toe. The Dorking Fowl is of good size, and of a white colour, but such are seldom seen." Mr. Martin is of the highest authority, being, not merely a member of the Zoological Society, but one of the scientific officers of that institution.

That the White Dorking had become exceedingly scarce in Dorking and its vicinity, I will give you an extract of a letter written by Captain E. E. Morgan, of the London packet-ship Victoria, dated at London, April 14th, 1845, and published in the American Agriculturist, July, 1845. It is as

follows:—"I shall write to Mr. Courtney again, who lives near Dorking. He told me, and I have also ascertained the same fact myself from other quarters, that none is to be obtained here, unless of a mongrel breed." Mr. Courtney, in a letter to Captain Morgan, says, "The *Old White* sort is altogether bred out, and the *Speckled* and *Gray* varieties are now all the rage, and altogether are, perhaps, the best *barn-door* Fowls in existence."

The Reverend Edward Saul Dixon, the author of a work on Ornamental and Domestic Poultry, published in London in 1850, says, "For those who wish to stock their Poultry-yards with Fowls of most desirable shape and size, clothed in rich and variegated plumage, and, not expecting perfection, are willing to overlook one or two points, the Speckled Dorkings, *so called* from the town in Surrey, which brought them into modern repute, are the breed to be at once selected."

"It is a question how the Speckled Dorkings were first introduced. Some maintain that the *pure White Dorkings* are the original breed, and that the Speckled Dorkings are a recent and improved cross."

After speaking of the good qualities of the Speckled Dorkings, Mr. Dixon says, "With all these merits they are not found to be a profitable stock if kept thorough-bred and unmixed. Their powers seem to fail at an early age. They are also apt to pine away and die, just at the point of reaching maturity; particularly the finest specimens, that is, the most thorough-bred, are destroyed by this malady. These, and a few other apparently trifling facts, seem to show that with the Speckled Dorkings, the art of breeding has arrived at its limits."

Mr. Dixon further says, "In the Speckled Dorkings the lungs seem to be the seat of the disease. They appear at a certain epoch to be seized with consumption. I do not believe that the most favourable circumstances would prevent the com-

plaint, though unfavourable ones would aggravate it; but that it is inherent in the race and constitution of the birds."

The White Dorkings are hardy and active birds, and are not subject to consumption, or any other disease.

Mr. Alfred Whitaker, a correspondent of the Gardeners' Chronicle and Farmers' Gazette, an English publication, says, in an article on the Speckled Dorkings, "I am disposed to think that, when you have a real variety, breeding-in is the natural and best mode of procedure, but that, when you cross two thorough breeds, you have no guarantee that the cross breed will be good further than the first result."

J. J. Nolan, of Dublin, Ireland, a dealer in fancy animals, has, within the past year, put forth a work for the purpose of advertising the articles in which he deals, in which he speaks very highly of the Coloured Dorking, which he styles the "True Dorking." He says, "Breeders will find it necessary to introduce, occasionally, fresh blood into their stock of Dorking; otherwise they become unhealthy, and degenerate into a dwarfish size; and, if you expect productive Eggs, do not give more than four or five Hens to a Cock." Nolan, in speaking of the Old Sussex or Kent Fowl, says, "It is so nearly allied to the Dorking, as to be almost impossible to separate them: they may be called identical, as, in the same clutch, some of the birds will have five toes, while others will have but four: those with the five toes being denominated by the breeders, Dorking; and they designated those with only four toes, the Old Sussex. Many fanciers prefer the old Sussex to the Dorking, considering the additional toe as rather a deformity, and, when perching, liable to accident. They are of all the various colours of the Dorking: the description of that bird may in every particular be applied to them. They require, as in the Dorking, fresh blood introduced, or they become degenerate." I have given these extracts for the purpose of showing that a

white race of Dorkings did exist, and that the coloured, speckled, and gray varieties cannot be depended upon to reproduce their own characteristics.

Yours, &c.

S. Bradford Morse, Jr.

East Boston, Mass., December 14th, 1850.

CHAPTER XII.

THE SPANISH FOWL.

With this variety of Fowls, I must confess myself not much acquainted. I am familiar with their appearance and general characteristics, but not so with their habits and qualities. They are said to possess many and rare merits. Their appearance is certainly very fine, being spirited and animated. The name "Spanish" is said to be a misnomer, as they were originally brought by the Spaniards from the West Indies, and, although subsequently propagated in Spain, it is now very difficult to procure good specimens from that country. They were taken in considerable numbers from Spain into Holland, where they have, for many years, been bred with great care; and it is now from that quarter our best specimens come.

A thorough-bred Spanish Fowl should be entirely black, as far as feathers are concerned, and, when in high condition, display a greenish metallic lustre. The combs of both male and female are very *large*, of a brilliant scarlet, and that of the Hen drooping over on one side. Their most singular feature is a *white mark on each cheek*, of a fleshy substance, similar to the wattles; which is small in the Hens, but large and very conspicuous in the Cocks. "This marked contrast of black, bright red, and white, makes the head of the Spanish Cock as handsome as that of any other variety; and, in the genuine breed,

the whole form is equally good; but the scraggy, long-legged, misshapen mongrels are often met with, enough to throw discredit on the whole race."

I have seen and know enough to regard the Black Spanish, in its purity, to be a truly distinct variety. A full-grown Cock may weigh nearly 7 lbs., and a Hen about 6 lbs. The comb is deeply serrated, and the wattles are very long, and the bird quite free from top-knot. They are not very pugnacious. The Hens are not inclined to sit, but are very good layers: Eggs large and white.

F. BLAKE, ESQ., kindly furnished the portraits, and writes as follows, concerning this ancient variety:—

Boston, December 10th, 1850.

J. J. KERR, M. D.

Dear Sir:—The Black Spanish Fowls, of which the artist, Mr. Durivage, has produced a most faithful representation, were presented to me by James Yates, Esq., of Lancashire, England, through Capt. Wm. Harrison, of the British steamer Canada, in the autumn of 1847. In describing them, Mr. Yates remarks: "I found great difficulty in getting the pure breed at first, and I do not know of any one in this country that has it except myself. In breeding them, it is better to get the Dorking Hen for hatching the Eggs."

I have seen no breed of Fowls more peculiar, and strikingly attractive in its appearance, than this; and as regards their laying qualities, and character for the table, I decidedly prefer them to any others with which I have had experience.

The comb of the Cock is exceedingly large, deeply serrated, of a brilliant scarlet, and quite erect. The wattles are of proportionate size, which, with the large and beautifully white ear-lobe, or cheek-pieces, and brilliant jet-black plumage, peculiar to this variety, affords a very striking and agreeable contrast.

The comb of the Hen is also quite large, but drooping, and the white cheek-piece is less conspicuous.

The legs of both Cock and Hen are of a leaden hue; the under part of the feet, of a dingy yellow.

The Chickens, of which I have had between one and two hundred during the past season, have been perfectly uniform in all their characteristics, and this uniformity in the progeny, I regard as one of the surest tests of thorough breeding. They are literally *everlasting layers*. Their peculiar disinclination to sit is very remarkable, and I regard it as their most valuable characteristic; for, in my experience, I have been exceedingly annoyed by the constant propensity which some other breeds have manifested in this respect. For the period of more than three years, during which I have had them, the Hens have not in a single instance manifested a desire to sit. Moubray, Richardson, Dixon, and other writers, concur in expressing the most favourable opinions of their character. "As table birds," says Richardson, "they hold a place in the very first rank, their flesh being particularly white, tender, and juicy, and the skin possessing that beautifully clear white hue, so essential a requisite for birds designed for the consumption of the gourmand. They are, besides, prolific, extremely easily fed; and, in short, I know of no Fowl I would rather recommend to the notice of the breeder."

Dixon, who, I think, may be regarded as one of the very best authorities, remarks: "It is a noble race of Fowls, possessing many great merits; of spirited and animated appearance, of considerable size, excellent for the table, both in whiteness of flesh and skin, and also in flavour; laying exceedingly large Eggs in considerable numbers; but the scraggy, long-legged, misshapen mongrels one often sees in the poorer quarters of a town, are enough to throw discredit on the whole race. Finding it too troublesome to preserve a variety of breeds in perfect purity, I have, after considerable experience, fixed upon the

Black Spanish as my preference, and shall keep but one other breed for sitters. I am not inclined to disparage other breeds, (and I assure you the organization of our society in New England, with its exhibitions, has excited an interest which renders us somewhat sensitive upon this subject,) but I am satisfied that, if persons interested will confine their attention to some one favourite breed, avoiding a too frequent propensity for cross breeding, we shall soon establish the fact, that there is no description of stock more susceptible of improvement than our Domestic Poultry, and shall convince those who are somewhat inclined to smile at our hobby, that the ordinary barn-yard Fowl is of comparatively little value.

Respectfully yours,

FRANCIS BLAKE.

Mr. Dixon says:—The Spanish breed is, in all probability, of ancient and remote origin, and does really seem to have reached us from the country after which it is named. In North Devon they call the Spanish Fowls "Minorcas;" others call them Portugal Fowl. Neither term removes them far from their old-established location, if not their original home. It is a noble race of Fowls, possessing many great merits; of spirited and animated appearance, of considerable size, excellent for the table, both in whiteness of flesh and skin, and also in flavour, laying exceedingly large Eggs in considerable numbers. Among birds of its own breed it is not deficient in courage; though it yields without showing much fight to those which have a dash of game blood in their veins. It is a general favourite in all large cities, for the additional advantage that no soil of smoke or dirt is apparent on its plumage. The thorough-bred birds of the fancy should be entirely black, as far as feathers are concerned, and, when in high condition, display a greenish metallic lustre. The combs of both Cock and Hen are exceedingly large, of a vivid and most brilliant scarlet; that of the Hen

droops over on one side. Their most singular feature is a large white patch, or ear-lobe, on the cheek, which in some specimens extends over great part of the face, of a fleshy substance, similar to the wattle; it is small in the Hens, but large and very conspicuous in the Cocks. This marked contrast of black, bright red, and white, makes the head of the Spanish Cock as handsome as that of any variety we have; and in the genuine breed the whole form is equally good: but the scraggy, long-legged, misshapen mongrels one often sees in the poorer quarters of a town, are enough to throw discredit on the whole race.

Spanish Hens are celebrated as good layers, and produce very large, quite white Eggs, of a peculiar shape, being very thick at both ends, and yet tapering off a little at each. They are, by no means, good mothers of families, even when they do sit, which they will not often condescend to do, proving very careless, and frequently trampling half their brood under foot. But the inconveniences of this habit are easily obviated by causing the Eggs to be hatched by some more motherly Hen.

It has been noticed that this variety of Fowl frequently loses nearly all the feathers on the body, besides the usual quantity on the neck, wings, and tail; and, if they moult late, and the weather is severe, they feel it much. Nothing else can reasonably be expected to take place with an "everlasting layer." It often happens to the Guinea Fowl; and the reason of it is plain. If the system of a bird is exhausted by the unremitting production of Eggs, it cannot contain within itself the wherewithal to supply the growth of feathers. The stream that will fill but one channel, cannot be made to keep two at high-water mark; and therefore Mr. Leonard Barber justly observes, "With regard to an anxiety about their constant laying, in my opinion, nature ought not to be forced, as it requires a rest. But some people think it cannot be right if their Hens do not lay every day; and I would advise such to have some early spring Chickens, which would begin laying in

the autumn and continue mostly through the winter; and their old Hens would commence in the spring."

"I have had Hens laying every day, but never wish them to continue the practice, as, nine times out of ten, they suffer afterwards."—*H. H.*

It is doubtful whether they are even yet thoroughly acclimatized, for continued frost at any time much injures their combs; frequently causing mortification in the end, which has terminated in death. A warm poultry-house, high feeding, and care that the birds do not remain too long exposed to severe weather, are the best means of preventing this disfigurement.

Some birds are occasionally produced, handsomely streaked with red on the hackle and back. This is no proof of bad breeding, if other points are right. On the contrary, it is, as near as may be, the sort which Columella's relation might have kept in Spain,* at the time when he was improving the native sheep by the importation of rams from Morocco, eighteen hundred years ago.

The Chicks are large, as would be expected from such Eggs, entirely shining black, except a pinafore of white on the breast,† and a slight sprinkling under the chin, with sometimes also a little white round the beak and eyes; legs and feet black. Many of them do not get perfectly feathered till they are three parts grown; and therefore, to have these birds come to perfection in this country, where the summers are so much shorter than in their native climate, it is necessary to have them hatched early in spring, so that they may get well covered with plumage before the cold rains of autumn. But, as Mr. Bissell observes, "there is any thing but an uniformity in the time Spanish Chickens get their plumage; the Pullets are al-

* "M. Columella patruus meus, acris vir ingenii, atque illustris agricola."—Lib. vii. c. 2.

† In this particular the Spanish Chicks are precisely like the Black Polish Chicks.—Ed.

ways earlier and better feathered than the Cockerels: the latter are generally half naked for a considerable length of time after hatching. But this is not universally the case, for some of my best Cockerels were feathered tolerably well at an early age. This is a fact worth some particular remark, as many superficial observers in this neighbourhood have invariably rejected, for breeding purposes, the Cockerels which got their feathers early, supposing from that fact that they were not purely bred. But I have not only found them to possess all the qualities of the Spanish, fully and truly developed, but that their early feathers so screen them from the inclemencies of the weather, that they are enabled soon to outstrip their brethren in size."

The black, however, is not the only valuable race of Spanish Fowl, although certain metropolitan dealers, who have no right to offer an opinion, if they do not choose to give information on the subject, presume to affirm that there can be no such breed as *speckled* Spanish, it being characteristic of that breed to be perfectly black. But Mr. Swainson justly complains of the deficiencies and the conduct of this class of people; and it is surprising that, since the establishment of the Zoological Society, they have not seen both the impolicy and the impracticability of withholding information on natural history from the public; for I cannot suppose the folly of any attempt to mislead. "Our first idea was to have drawn up (in the volume on birds) as complete a catalogue as possible of all such foreign birds as were to be met with in our public or private menageries, distinguishing such as were known to have bred in confinement, and had consequently become domesticated, from such as were merely acclimated, or accustomed to our climate. This, without doubt, would have been the most desirable plan of proceeding, and would have given that information to the lovers of aviaries, which is now so much wanted; but further inquiry showed us *the utter impossibility of doing this, from the total absence of the necessary materials. It has*

not been heretofore the custom of recording in print, information of this nature. Those persons whose trade lies in the buying and selling of living birds, and of which there are several in London, *are not persons capable of writing upon such matters, even had they the inclination to reveal what they no doubt consider the secrets of their craft.* The Zoological Society, on the other hand, by embracing within its objects the whole animal kingdom, has hitherto found itself so occupied, and its attention so distracted, by the multiplicity of its concerns and the paucity of its working members, that nothing worth mentioning has been communicated to the public on this interesting subject. However desirable, therefore, such an exposition as we at first contemplated would be, it never can be carried into execution, *unless by the powerful and united assistance* of those who direct their time and attention almost exclusively to the rearing and management of birds."—*Animals in Menageries*, Part II. "Birds," pp. 147, 148.

A gentleman, who has served in the British army, in whose opinion, as a naturalist and a man of education, we have as great confidence as in that of any mere fowl-dealer, states, "In England there are *two* varieties of Spanish Fowl, the Black, and the Gray, or Speckled, the latter being of a slaty gray with white legs. In Spain there must be many varieties of everlasting layers, for I have seen a lot abroad that differed widely in appearance, single combs, double combs, and a great variety of colour."

Mr. Barber says, "Being of opinion that our breed of Fowls required improvement, and having heard from a Spanish friend that they had a very fine breed in the part of Spain he came from, which were chiefly white or speckled, I last year (1846) got him to procure me some, and finding that they were such excellent layers, and that they were so much admired by every one who saw them, I got another importation about a month since, (Nov. 6th, 1847,) amongst which there are three

speckled black and white, in shape and carriage very much like the spangled Polish, (except being much longer in the leg,) having top-knots, and a tuft of feathers hanging under the throat, and white legs. The others are pure white, in shape and carriage exactly like the black Spanish, only wanting the white cheek-patch. They are much larger and broader than any of the black I have ever seen, and they are very fine in the neighbourhood of London. The Cock that came with the first lot is entirely black, and long in the legs, but without the white cheek-patch. In my opinion, they are the most useful and ornamental breed of Fowls both for the breeder and amateur. Their Eggs are equal in size and number to those of the black Spanish. Some of mine last year weighed three, and some four ounces each. They appear very healthy and hardy. My Fowls came from the neighbourhood of Xeres de la Frontera, in Andalusia, about twenty-five miles from Cadiz. They have cost me about ten shillings each, including freight, duty, and expense of clearing."

Another gentleman says, "I have a few Chickens out, from Mr. Barber's Andalusian Hens, some of which seem to be the true old black Spanish, and others of a grisly white, one of which has evident signs of a large future muff, but not the slightest semblance of a top-knot at present. They are without exception the very largest and finest Chicks I ever saw, coming, as they do, out of Eggs, fine certainly, but which do not exceed many of my own."—*H. H.*

Some of these birds are of a blue, or gray, or slaty colour. Their growth is so rapid, and their eventual size so large, that they are remarkably slow in obtaining their feathers. Although well covered with down when first hatched, they look almost naked when half-grown, and should therefore be hatched as early in the spring as possible.

The cross between the Pheasant-Malay and the Spanish pro-

duces a particularly handsome Fowl, and probably very much resembling the old Hispanic type.

A Black Spanish Cock has been taught to visit the sill of his master's bed-room window every morning, and continue crowing till he was rewarded with a piece of bread.

Mr. Barber subsequently adds, "The tufted Fowls I had from Spain have not proved such good layers as the speckled single-combed. I have kept a correct account this season (1848) of the number of Eggs I have had from them, and it amounts to above fourteen hundred, and they are still (Sept. 11th) laying. I began the season with twenty-three Hens. One has reared a brood of Chickens. Two died early in the season. This is a much larger number than I have ever had from any of the *Black* Spanish I have kept. There is one great imperfection in these Fowls, which I think it right to mention, and that is, I have lost *nine* from laying, or rather, attempting to lay, soft Eggs, and they have *all* been Hens which laid the largest Eggs. However, I am inclined to think this is in a great measure owing to the confined space in which they are kept." There is no doubt of it, and that the evil would cease were the Hens indulged with a more extended range, where they could help themselves to chalky earth, lime-rubbish, and other natural medicines that are perhaps unsuspected by us. Nor have towns people an idea of the intense longing which their Fowls feel for any thing *green*, such as cabbage-leaves, turnip tops, and so on. The thousand-headed cabbage is very serviceable for them; and those who have only a small garden can provide some supply of green food for their poultry, by having the edgings of parsley, instead of box, or thrift. The Fowls are very fond of it, as a variation from cabbage-leaves.

We cannot too much insist upon the value of early Pullets for laying purposes in the autumn and winter after they are hatched. No Fowls can surpass the Spanish in this respect.

A correspondent (J. S. W.) believes that they are also more precocious in their constitution, and that, in consequence, the Pullets lay at an earlier age than those of other breeds. He had two Black Spanish Pullets which were hatched on the 2d of February, and commenced laying on the 18th and 19th of the July following, *and kept it up through the winter.* The constant use of a memorandum-book would fix many of these interesting little facts. It would be useful to institute a competition between different breeds. An experiment with a lot of Chickens of distinct varieties, hatched on the same day, and reared in the same yard under the same treatment, would be instructive, if the results were noted.

There is a large breed of Fowls brought from Constantinople and the shores of the Black Sea. I have had no opportunity of seeing specimens, but it would appear to be a branch of the Spanish. The Hens are described as having a large flaccid comb, flapping about like a piece of serrated red velvet, and as being astonishing layers, seldom sitting. It is a speculation whether the Spanish came to us from the East, southwards, via the Black Sea, while the Polish might reach us overland through Russia.

CHAPTER XIII.

THE GAME FOWL.

Of all the varieties of Domestic Fowls, except, perhaps, the Smooth-legged Bantam, the Game Fowl is the most symmetrical. It is more slender in the body, the neck, the bill, and the legs, than other kinds, and the various hues of the plumage are more brilliant and showy. Their flesh is white, *compact*,—like that of the race-horse as compared with the scrub,—delicate, and very nutritious; but the extreme difficulty of rearing the Chickens, owing to their natural pugnacity, which shows itself at a very early period, deters most breeders, excepting those who breed for the cock-pit. "Whole broods, scarcely feathered, are sometimes stone-blind from fighting, to the very smallest individuals: the rival couples moping in corners, and renewing their battles on obtaining the first ray of light." The game Eggs are rather smaller than common, but finely-shaped, and extremely rich and delicate. The weight of this Fowl is from 3½ to 5½ lbs., though I have heard of 8 lbs., and my friend, Wm. Wistar, Esq., near Germantown, assures me that he has a Game Cock, thorough-bred, that now weighs 9¼ lbs. The practice of fighting Cocks is supposed to be of Grecian origin. It was adopted by the Romans about 470 years before the Christian era. For the gratification of the curious in this matter, I will extract, from a work recently published in Ireland, the following account of Cocking:—

It is not particularly known when the pitched battle was

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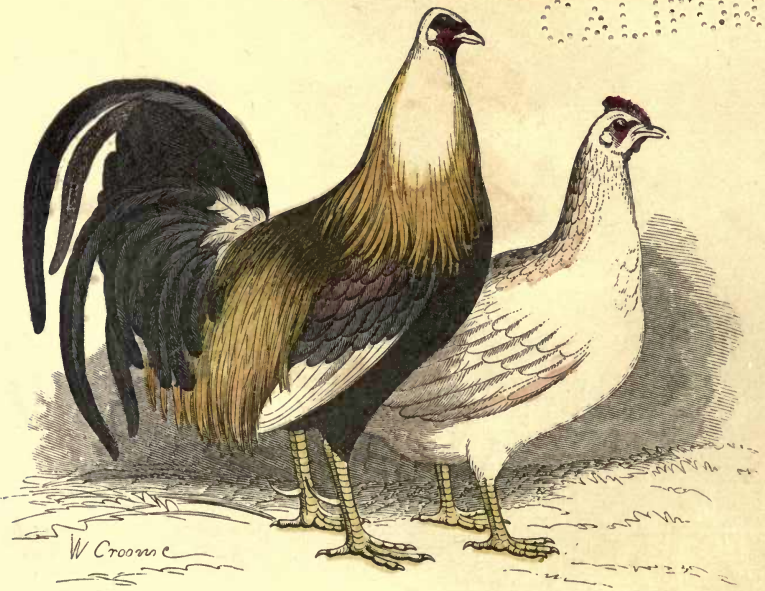
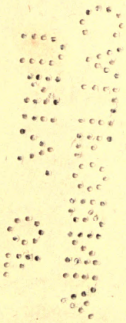


MR. J. WISTAR'S GRAY GAME FOWLS



first introduced into England. We have no notice of Cock-fighting earlier than the reign of Henry II. William Fitz-Stephen describes it, then, as the sport of school-boys, on Shrove Tuesday; the theatre was the school, and the school-master, it seems, was the controller and director of the sport. The practice was prohibited in the 39th of Edward III., but became general under Henry VIII., who was personally attached to it, and established the cock-pit at Whitehall, to bring it more into credit. James the First was so remarkably fond of it, that, according to Monsieur de la Bodenie, who was ambassador for Henry IV. to the king, he constantly amused himself with it twice a week. Under Elizabeth, it was not less in vogue, and the learned Roger Ascham then favoured the world with a treatise on the subject. There was then a pit in Drury-lane, Horseferry-road, and Gray's-Inn-lane, St. James's Park, and another in Jewin-street; but the practice was a second time prohibited, by an act under the Protectorship, in 1554. Our Dublin pits are of a more recent date, the principal of which were in Clarendon-street and Essex-street, where the Meaths and Kildares often proved the powers of their Cocks. The fights were managed by men, who made a livelihood by it, and were called handlers: they alone were admissible within the "magic circle."

A cock-pit, like a race-course, in a sporting point of view, was for every person, and selection of company was entirely out of the question. The noble lord, and the *needy* commoner, were both at home, after they had paid their *tip* for admission; and persons who enter the pit to sport a *crown*, bet a *sovereign*, or put down their pounds, are too much interested upon the *main*, to consider who they may choose to "*rub* against" for the time being.

Cocking was kept up with great spirit at Newcastle. At one of their last meetings, the cockers at the above place, in point of extent, exceeded every thing of the kind known in Great

Britain. Upwards of 200 Cocks were fought, and the fighting generally good, particularly the Cocks of Baglin-hill and Lockey, which all won great majorities. A remarkable circumstance occurred on the Saturday before fighting. A match was made for 20 sovereigns, between Parker and Reed, feeders, and won by the latter, after a hard contest. Parker's Cock, however, came round so soon after, that his party made a second match, to come off on the following Monday, for a like sum, which was again won by Reed, after a severe battle —a circumstance, perhaps, altogether unknown in the annals of cocking. It is also calculated that, at the termination of the races, which finished with cocking, upwards of 1,000 Cocks had met their deaths. Newcastle, therefore, challenged the world for cocking. Cheltenham, Chester, Gloucester, Norwich, Lancaster, Preston, Stamford, &c. &c., were celebrated for their Cocks. The patrons were the Earl of Derby, Sir William Wynne, Ralph Benson, Esq., &c. &c.

The exterior qualifications of a Cock are, head thin and long, or, if not, very taper; a large, full eye; beak crooked and stout; neck thick and long, (a Cock with a long neck has a great advantage in his battle, particularly if his antagonist is one of those Cocks that will fight at no other place but the head;) his body short and compact, with a round breast, (as a sharp-breasted Cock carries a great deal of useless weight about him, and never has a fine forehand;) his thighs fine and thick, and placed well up to the shoulder, (for where a Cock's legs hang dangling behind him, be assured he never can maintain a long battle;) his legs long and thick, and if they correspond with the colour of his beak—blue, gray, or yellow—I think it a perfection; his feet should be broad and thin, with very long claws. With regard to his carriage, he should be upright, but not stiffly so; his walk should be stately, with his wings in some measure extended, and not plod along, as I have seen some Cocks do, with their wings upon their backs, like geese;

his colour rather gray, yellow, or rose, with black breast; his spurs rough, long, and looking inward. As to the colour he is of, it is immaterial; there are good Cocks of all colours; but he should be thin of feathers, short, and very hard, which is another proof of his being healthy. Remember that a Cock, with all his stoutness, length, and thickness of leg, rotundity of breast, "fine forehand," firmness of neck, and extent of wing, ought not to weigh more than 4 lb. 8 or 10 oz.; if he happen to have an ounce or two more in his composition, he is out of the pale of the pit, and is excluded by all match-makers, from "fighting within the articles." A bird, to be a bird, "fit for the white bag, the trimmed wing, the mat, and the silver spur," must be light upon the leg, light-fleshed, and large-boned, but still no more than 4 lb. 8 or 10 oz.

A cock-pit was a large, lofty, circular building, with seats rising, as in an amphitheatre; in the middle of it was a round, matted stage, of about 18 or 20 feet in diameter, and rimmed with an edge, eight or ten inches in height, to keep the Cocks from falling over in their combats; there was a chalk ring in the centre of the matted stage, of perhaps a yard diameter, and another chalk-mark within it, much smaller, which was intended for the setting-to, when the shattered birds were so enfeebled as to have no power of making hostile advances towards each other. This inner mark admitted of their being placed beak to beak. A large and rude branched candlestick was suspended low down, immediately over the mat, which was used at the night-battles. The birds were weighed and matched, and then marked and numbered; the descriptions were carefully set down, in order that the Cock should not be changed; the lightest Cocks fought first in order. The key of the pens, in which the Cocks were set and numbered, was left on the weighing-table, or the opposite party might, if he pleased, put a lock on the door. The utmost possible care, in short, was taken, that the matched birds should fight, and no

substitutes intruded. *The following sketch of a set-to, is from the pen of a celebrated amateur:—*

The only persons allowed on the platform are the setters-to. The first I shall name Nash, the younger; he was followed by a stout, plump, old, ostler-looking man, named Nash, the elder. This person carried a white bag, containing one of the brave birds for the battle. The two men stepped upon the mat; the hubbub is instantaneous—"Two to one on Nash"—"A guinea on Nash"—"Nash a crown;" the bets are laid on the setter-to. From the opposite side of the pit, a similar procession entered; the setter-to, Fleming, by name, did not appear so great a favourite as young Nash. The chuckle of the Cock in his bag was answered deeply and savagely from the other, and the straw seemed spurned in the narrow cell.

Nash's bag was carefully untied, and Nash himself took out one of the handsomest birds I think I ever beheld; he was a red and black bird; slim, masculine, trimmed, yet with feathers glossy, as though the sun shone only on his nervous wings; his neck arose out of the bag, snake-like—terrible—as if it would stretch upwards to the ceiling; his body followed—compact, strong, and beautiful; and his long, dark-blue, sinewy legs came forth—clean, handsome, shapely, determined, iron-like! The silver spur was on each heel, of an inch and a half in length, tied on in the most delicate and neat manner; his large, vigorous beak showed aquiline, eagle-like; and his black, dilating eyes took in all around him, and shone so intensely brilliant, that they looked like jewels; their light was that of thoughtful, sedate, and savage courage; his comb was cut close; his neck trimmed; his wings clipped, pointed, and strong; the feathers on his back were of the very glossiest red, and appeared to be the only ones which were left untouched; the tail was docked triangle-ways, like a hunter's. The gallant bird clucked defiance, and looked as if he "had in him something dangerous!" Nash gave him to Fleming, who held him up

above his head, examined his beak, his wings, his legs, while a person read to him the description of the bird from paper; and upon finding all correct, he delivered the rich, feathered warrior back to Nash, and proceeded to produce his own bird for a similar examination.

But I must speak of the senior Nash—the old man, the feeder. When again may I have an opportunity of describing him? and what ought a paper upon cocking be accounted worth, if it fail to contain some sketch, however slight, of old Nash? He wore a smock-frock, and was clumsily, though potently built, his shoulders being ample, and of a rotundity resembling a wool-pack; his legs were not equal to his bulk; he was unconversational, almost to a fault, and never made even the slightest remark that did not appertain to Cocks or cocking; his narrow, damp, colourless eye, twinkled a cold satisfaction when a bird of promise made good work on the mat, and sometimes, though seldom, he was elevated into the proffer of a moderate bet; but generally he leaned over the rails of a small gallery, running parallel with the coop, and, stooping attentively towards the pit, watched the progress of the battle. I remarked he was extremely like a Cock—old Nash's beaked nose, drawn close down, over his mouth; his red forehead and gills; his round body; and blue, thin legs; and his silver-gray, scanty, feathery hair, lying like a plume over his head, all proved him Cock-like. This man, thought I, has been cooped up in pens, or penned up in coops, until he has become shaped, coloured, mannered like the bird he has been feeding. I should scarcely have been surprised, if told, that old Nash crowed when the light first dawned of a summer's morning. I warrant he pecked bread and milk to some tune, and, perhaps, slept upon a perch! But Fleming lifted his bird from the bag, and my whole mind was directed his way: this was a yellow-bodied, black-winged, handsome Cock, seemingly rather slight, but elastic and muscular; he was restless at the sight

of his antagonist, but quite silent; and old Nash examined him most carefully, by the paper, and delivered him up to Fleming, upon finding him answer to his description. The setters-to then smoothed their birds, and handled them, wetted their fingers, and moistened their bandaged ankles, where the spurs were fastened; held them up opposite to each other, and then pampered their courage and prepared them for combat.

THE FIGHT.

The mat was cleared of all persons except Fleming and young Nash; the betting went on vociferously; the setters-to taunted the birds with each other's presence—allowed them to strike at each other at a distance—put them on the mat facing each other—encouraged and fed their crowing and mantling, until they were nearly dangerous to hold, and then loosened them against each other, for the fatal fight.

The first terrific dart into attitude was, indeed, strikingly grand and beautiful; and the wary sparring, watching, dodging for the first cut, was extremely curious. They were beak-point to beak-point, until they dashed up into one tremendous flirt, mingling their powerful, rustling wings, and nervous heels, in one furious, confused mass. The leap, the fire, the passion of strength, *certaminis gaudia*, were fierce and loud: the parting was another kind of thing, every way. I can compare the sound of the first flight to nothing less than that of a wet umbrella forced suddenly open. The separation was death-like: the yellow, or rather the ginger bird, staggered out of the close, drooping, dismantled, bleeding: he was struck.

Fleming and Nash severally took their birds, examined them for a moment, and then set them again opposite to each other. The handling of the Cocks was as delicate as if they had been made of foam, froth, or any perishable matter. Fleming's bird staggered towards his opponent, but he was hit dreadfully,

and ran like a drunken man—tottering on his breast, sinking back his tail—while Nash's, full of fire and irritated courage, gave the finishing stroke, that clove every particle of life in twain. The brave bird thus killed, dropped at once from the "gallant bearing, and proud mien," to the relaxed, draggled, motionless object that lay in bleeding ruin on the mat. I sighed and looked thoughtful, when the tumult of the betters startled me into a consciousness of the scene at which I was present.

The victor Cock was carried by me in all his pride, slightly scarred, but evidently made doubly fierce and muscular, by the short encounter he had been engaged in. He seemed to have grown double the size: his eyes were larger.

The paying backward and forward of money, won and lost, occupied the time until the two Nashes again descended with another Cock.

Sometimes the first blow was fatal, at another time the contest was long and doubtful, and the Cocks showed all the obstinate courage, weariness, distress, and breathlessness, which mark the struggle of experienced pugilists. I saw the beak open, the tongue palpitate, the wing drag on the mat: I noticed the legs tremble, and the body topple over upon the breast; the eye grow dim, and even a perspiration break out upon the feathers of the back. When the battle lasted long, and the Cocks lay helpless near or upon each other, one of the feeders counted ten and the birds were separated and set-to at the chalk. If the beaten bird does not fight while forty is counted, and the other pecks or shows signs of battle, the former is declared conquered.

The Cocks were the next object of curiosity. A covering was hung before each pen, so that I heard rather than saw the Cocks; but it was feeding time, and I beheld innumerable rocky beaks, and sparkling eyes at work in the troughs; and the stroke of the beak, in taking up the barley, was like the

knock of a manly knuckle on the table. Old Nash was mixing bread and milk for his feathered family.

Now hear what Mr. Dixon says concerning the Game Cock: —The Game Cock is by no means the aggressive, sanguinary tyrant that he is commonly represented to be. He will submit to no insult or intrusion within his own domain; but neither does he offer any unprovoked assault. If his antagonist flee, he is satisfied, and does not pursue him in order to perpetrate any bloody revenge. Other poultry that are killed by Game Cocks, generally draw down the punishment upon themselves, by their own impudent and continued aggression. The bird, too, is as enduring of pain as he is bold in combat. We were compelled, to prevent mischief, by amputating the spurs of a Game Cock: he bore the operation, and the subsequent application of hot iron to prevent bleeding, without a sound or a murmur; and when set down in the midst of his Hens, was as lofty and imperious in his carriage as ever. "Avis pugnax," "the pugnacious bird," is a term applied by Aldrovandi, not to fighting Cocks, but to Ruffs and Reeves. A false notion of their savage disposition is also derived from the sight of the sparrings of the half-grown chickens: but the Pullets will indulge in this game as well as the Cockerels. It is very rarely that mischief is meant by such tiltings. We might remember that the play of all young animals is a sham-fight. Young Lambs run races to obtain possession of a hillock, from which the strongest will rebut the weak. Puppies snarl, and growl, and snap, and struggle, all in perfect good-nature. Kittens will roll over each other, and grapple, and show in sport the best method of disembowelling an enemy with their hind claws, if one of the playmates were but a rat. Even boys can play at French and English; and a couple of Cockerels will often stand beak to beak, making two or three jumps with outstretched neck and ruffled hackle, but with no

more evil intention (for the present) than many a gentleman when he sets to his partner in a quadrille.

Sir W. Hooker gives a very pleasing instance of animal skirmishing, which he observed while making his tour in Iceland:—

"Had I been the only person to witness the following circumstance concerning the Dogs in Iceland, I should scarcely have ventured to relate the anecdote; but my scruples are removed, as, so far from this having been the case, I was not even the first who saw it; for Mr. Browning, an officer of the Talbot, whose ill-health confined him to a room on shore, called my attention to it, by more than once remarking to me that he had, from his window, in the morning of several successive days, observed, at a certain hour, a number of Dogs assemble near his house, as if by a previously concerted arrangement, and, after performing a sort of sham-fight for some time, disperse and return to their homes. A desire to be an eye-witness of so singular a fact, led me to go to this gentleman's room one morning, just as these animals were about to collect. The spot they frequented was across the river, which there are but two ways of passing from the town without swimming, the one a bridge, the other some stepping-stones, each situated at a small distance from the other. By both these approaches to the field, the Dogs belonging to Reikevig were running with the greatest speed, while their companions of the neighbouring country were hastening to the place of *rendezvous* from other quarters. We counted twenty-five of them, not all of the true Icelandic stock, (the *Fiaar-huundar*,) but some of different kinds, which had probably been brought to the country by the Danes; and I presume it was one of these, much larger and stronger than the rest, who placed himself upon an eminence in the centre of the crowd. In a few seconds, three or four of them left the main body, and ran to the distance of thirty or forty yards, where they skirmished in a sort of sham-battle;

after which one or two of these returned, and one, two, or three others immediately took their places; party succeeding party, till most, if not all, had had their share in the sport. The captain remained stationary. The engagement was in this manner kept up by different detachments, the Dogs continuing their amusement in playfulness and good humour, though not without much barking and noise, for about a quarter of an hour, when the whole of them dispersed, and took the way to their respective homes in a less hasty manner than they had arrived."

Allowing for the inferior intelligence of Fowls, many of the gambols of chickens are similar to this. The Cock of the Walk never interferes with such harmless frolics, which he would do if they threatened any thing serious. Were I to compare the temperament of Game Fowls with that of the human race, I should say they had not one atom of the lymphatic in their composition, but a happy combination of the sanguine and the nervous. The Game breed, among Fowls, has been likened to the Arabian, among Horses. Their frame is compacted of solid flesh and gristle: even the feathers of the Game Cock (excepting the standards and the hackle) fit very tightly and closely to the body of the bird, giving it, when in high condition, a sort of crustaceous or even enamelled appearance, as if it were a piece of living Japan-work.

But though we wish to clear the Game breeds from the charge of blood-thirsty cruelty, we cannot hold them out as patterns of gentleness and forbearance. Might, with them, makes right. None but the brave, however well they may deserve, or how much soever they may long for, are likely to enjoy, any favour from the present class of rusty-fusty coloured beauties. Quiet people, unless they have studied Phrenology, or kept Game Fowls, have little idea how close a connexion there is said to be between love and murder. But the ladies have long found it out; there is no sweetheart like a soldier.

A constantly pacific male is despicable in their eyes. "Eh! si je veux qu'il me batte!" "If I choose my husband to beat *me*, what business is that of *yours?* A pretty state of things, when a woman may not permit her own husband to beat her!" So wrote the great Molière, in the high-heeled, periwigged reign of Louis XIV. But civilized and uncivilized nature is alike. The southern she-savage, when her brute lifts his waddy to give her a tap on the head that would fell an English ox, bows thankfully to receive the caress on her indurated noddle, and triumphs that the compliment was not bestowed upon either of the other squaws. Here are some like doings in chivalrous Spain:—

"There was a burly, savage-looking fellow, of about forty, whose conduct was atrocious; he sat with his wife, or perhaps concubine, at the door of a room which opened upon the court: he was continually venting horrible and obscene oaths, both in Spanish and Catalan. The woman was remarkably handsome, but robust, and seemingly as savage as himself; her conversation, likewise, was as frightful as his own. Both seemed to be under the influence of an incomprehensible fury. At last, upon some observation from the woman, he started up, and drawing a long knife from his girdle, stabbed at her naked bosom; she, however, interposed the palm of her hand, which was much cut. He stood for a moment viewing the blood trickling upon the ground, whilst she held up her wounded hand, then, with an astounding oath, he hurried up the court to the Plaza. I went up to the woman and said, 'What is the cause of this? I hope the ruffian has not seriously injured you.' She turned her countenance upon me with the glance of a demon, and, at last, with a sneer of contempt, exclaimed, '*Caràls, que es eso?*' 'Cannot a Catalan gentleman be conversing with his lady upon their own private affairs, without being interrupted by you?' She then bound up her hand with a handkerchief, and, going into the room,

brought a small table to the door, on which she placed several things, as if for the evening repast, and then sat down on a stool; presently returned the Catalan, and, without a word, took his seat on the threshold; then, as if nothing had occurred, the extraordinary couple commenced eating and drinking, interlarding their meal with oaths and jests."—*Borrow's Bible in Spain*, vol. ii. p. 53. The lady was as submissive, as affectionate, and withal as petulant, as the Game Hen, on whom her lord bestows three or four sharp pecks, in punishment for ill-behaviour. We are conscious that we are now decidedly wandering; but, as a relief from the description of quill-feathers and the weight of Eggs, must really give an additional instance of the compatibility of even friendship with slaughter.

"In the course of the day, our men went down to a small brook, which flowed between the opposing armies, for water; and French and English soldiers might be seen drinking out of the same narrow stream, and even leaning over to shake hands with each other. One private, of my own regiment, actually exchanged forage-caps with a soldier of the enemy, as a token of regard and good-will. Such courtesies, if they do not disguise, at least soften the horrid features of war; and it is thus we learn to reconcile our minds to scenes of blood and carnage."—*Recollections of the Peninsula*, p. 110.

"It was a strange thing to see, in the crowded wards of the hospital, English and French soldiers lying helplessly side by side, or here and there performing little kind offices for each other, with a willing and a cheerful air. Their wants and thoughts, I observed, they communicated to each other in phrases of Spanish, which language many of the French privates spoke fluently, and our men understood well enough for all common purposes."—*Id.* p. 168.

Game Cocks are led on to battle by blind instinct, and have no higher directing principle. Shall we men ever retain the

virtue of friendship, and abolish the act of slaughter? Or would the abolition of bloody warfare be succeeded by some more villainous mode of gaining pre-eminence over each other?

As to Cock-fighting, I must believe it to have been made the theme of much ignorant cant. Hawking is a noble and honourable pastime; Cock-fighting is low and disgraceful. I have never seen a Cock-fight, and probably never shall. From what one has heard and read, it must be most exciting sport; but people who are proud of Waterloo, who dine off hunted hare, and breakfast on shrimps that have been boiled alive, allude to it with horror, as an atrocity incredible and unmentionable. Cocks, however, must die. Would a Cock that had been fought, be worse eating than a hare that had been hunted? And as to the mode of death,—ask a Cock which he would choose,—to be hung up by the heels, and have the cook run a knife up his throat, taking care that he bleed long, and die slowly, in order that his flesh may be so much the nicer and whiter,—or, to be set face to face with his adversary, and fight for his life!—if he win, to be petted and praised; if he fall, to have his existence cut short by one sharp, merciful thrust, instead of the lingering faintness of a culinary departure? The combat is a pleasure; the survivorship, a fair chance.

But Cock-fights were shamefully barbarous; they made people so hard-hearted and unfeeling, and gave rise to *so much* gambling: and as we have now no smooth-faced villains, nor any lying, double-tongued, intriguing robbers in the country; as we never now get rid of rivals, or people that stand in our way, by hunting them to death with persecution and calumny; secret poisoning, also, and infanticide, being unsuspected amongst us; above all, as gambling and swindling, of whatever kind, is utterly abolished, particularly in London and some neighbouring towns, such as Epsom, it will be a great pity if ever another Game Fowl is hatched in England—the poultry sent to market being so much more humanely put to

death: although one does see a few thorough-bred birds now and then, and hears faint rumours of an occasional amicable trial of strength.*

There is a very graphic account of a main, conducted *secundum artem* in by-gone days, to be found in Blaine's "Rural Sports." But Cock-fighting is of older date than modern fashionable refinement, and may possibly survive it. "The Alexandrians," says Statius, quoted by the Quarterly Review, "were indifferent soldiers, but the best of singers, and only surpassed by their compatriots, the Alexandrian fighting Cocks, as an appendage to Roman supper-parties." We have heard of a nobleman of the old school having a few couple of Cocks up into the drawing-room, as an agreeable interruption to the tiresome rubbers of whist. But before noblemen and their

* I am informed that, in certain places in Warwickshire, and in the adjoining county of Staffordshire, the effects of Cock-fighting still continue to be impoverishing, demoralizing, and degrading to its followers, clothing them and their families in rags. It is no uncommon thing, among the working people of that district, to stake the whole of their week's hard earnings upon a single fight. What must be the wretchedness and misery brought upon the families thus deprived of their only means of subsistence? Cock-fighting, with these results, is a terrible evil, for other reasons than mere sentimental talk about its *cruelty*. People can go and see a poor girl, or a reckless man, whom they believe to be endowed with immortal souls, daily expose themselves to be destroyed in a moment by lions and tigers, but they are too delicate to witness the shedding of a Cock's blood. It is the *gambling* which is the great immorality; of course, the assembling of so many low characters must be dangerous to the well-being of society. But the local magistrates surely have power, if they choose to exert it, of legally putting down such gambling, and preventing such assemblies; and the police would be better employed in preventing such ruinous infringements of the law, than in many of the cases on which they try their 'prentice hand, in a desperate effort to obtain their maiden conviction.

drawing-rooms were invented hereabouts, these little turns-up were unthinkingly made a source of amusement. Read what an observant traveller, and really estimable man, who could not himself have been deficient in courage, either physical or moral, has recorded:

"The most ancient, but certainly not the most innocent game among the Tahitians, was the *faatito-raamoa*, literally, the causing fighting among Fowls, or Cock-fighting. The Tahitians do not appear to have staked any property, or laid any bets, on their favourite birds, but to have trained and fought them for the sake of the gratification they derived from beholding them destroy each other. Long before the first foreign vessel was seen off their shores, they were accustomed to train and fight their birds. The Fowls designed for fighting were fed with great care; a finely-carved *fatapua*, or stand, was made as a perch for the birds. This was planted in the house, and the bird fastened to it by a piece of curious cinct, braided flat, that it might not injure the leg. No other substance would have been secure against the attacks of his beak. Their food was chiefly *poe*, or bruised bread-fruit, rolled up in the hand, like paste, and given in small pieces. The Fowl was taught to open his mouth to receive his food and his water, which was poured from his master's hand. It was customary to sprinkle water over these birds to refresh them. The natives were universally addicted to this sport. The inhabitants of one district often matched their birds against those of another division. They do not appear to have entertained any predilection for particular colour in the Fowls, but seem to have esteemed all alike. They never trimmed any of the feathers, but were proud to see them with heavy wings, full-feathered necks, and long tails. They also accustomed them to fight without artificial spurs, or other means of injury. In order that the birds might be as fresh as possible, they fought them early in the morning, soon after day-break, while the air was

cool, and before they became languid from the heat. More than two were seldom engaged at once, and so soon as one bird avoided the other, he was considered as *vi*, or beaten. Victory was declared in favour of his opponent, and they were immediately parted. This amusement was sometimes continued for several days successively."—*Ellis's Polynesian Researches*, vol. i. p. 302.

It would appear from Mr. Ellis, that there are innate ideas in the human understanding, one of which is Cock-fighting. The Tahitians manifest their simplicity in fighting for love, not for money. Other barbarians show themselves to be more sophisticated.

"Throughout every rank of the people of Sumatra there prevails a strong spirit of gaming. Cock-fighting they are still more passionately addicted to, and it is indulged to them under certain regulations. Where they are perfectly independent, their propensity to it is so great, than it resembles rather a serious occupation than a sport. You seldom meet a man travelling in the country, without a Cock under his arm, and sometimes fifty in a company, when there is a *bimbang* in one of the neighbouring villages. A countryman coming down, on any occasion, to the *qualloe*, or mouth of the river, if he boast the least degree of spirit, must not be unprovided with this token of it. They often game high at their meetings; particularly when a superstitious faith in the invincibility of their bird has been strengthened by past success. An hundred Spanish dollars is no very uncommon risk, and instances have occurred of a father staking his children or wife, and a son his mother or sisters, on the issue of a battle when a run of ill-luck has stripped them of property, and rendered them desperate. Quarrels, attended with dreadful consequences, have often arisen on these occasions.

"By their customs, there are four umpires appointed to determine on all disputed points in the course of the battles, and

from their decision there lies no appeal, except the Gothic appeal to the sword. A person losing, and who has not the ability to pay, is immediately proscribed, departs with disgrace, and is never again suffered to appear at the *galangang*. This cannot with propriety be translated, a *Cock-pit*, as it is generally a spot on the level ground, or a stage erected and covered in. It is inclosed with railing which keeps off the spectators; none but the handlers and heelers being admitted withinside. A man who has a high opinion of and regard for his Cock, will not fight him under a certain number of dollars, which he places in order on the floor; his poor adversary is perhaps unable to deposit above one-half: the standers-by make up the sum, and receive their dividends in proportion, if successful. A father, at his death-bed, has been known to desire his son to take the first opportunity of matching a certain Cock, for a sum equal to his whole property, under a blind conviction that he was *betooah*, or invulnerable.

"Cocks of the same colour are never matched, but a grey against a pile, a yellow against a red, or the like. This might have been originally designed to prevent disputes, or knavish impositions. The Malay breed of Cocks is much esteemed by connoisseurs who have had an opportunity of trying them. Great pains is taken in the rearing and feeding; they are frequently handled, and accustomed to spar in public, in order to prevent any shyness. Contrary to our laws, the owner is allowed to take up and handle his Cock during the battle; to clear his eye of a feather, or his mouth of blood. When a Cock is killed, or runs, the other must have sufficient spirit and vigour left to peck at him three times, on his being held to him for that purpose, or it becomes a drawn battle; and sometimes an experienced cocker will place the head of his vanquished bird in such an uncouth posture, as to terrify the other, and render him unable to give this proof of victory. The Cocks are never trimmed, but matched in full feather. The

artificial spur used in Sumatra, resembles in shape the blade of a scimetar, and proves a more destructive weapon than the European spur. It has no socket, but is tied to the leg, and in the position of it the nicety of the match is regulated. As, in horse-racing, weight is proportioned to inches, so, in cocking, a bird of superior size and weight is brought to an equality with his adversary, by fixing the steel spur so many scales of the leg above the natural spur, and thus obliging him to fight with a degree of disadvantage. It rarely happens that both Cocks survive the combat.

"In the northern parts of the island, where gold-dust is the common medium of gambling, as well as of trade, so much is accidently dropped in weighing and delivering, that at some Cock-pits, where the resort of people is great, the sweepings are said, probably with exaggeration, to be worth upwards of a thousand dollars per annum to the owner of the ground; besides his profit of two *fanams* (fivepence) for each battle.

"In some places they match quails, in the manner of Cocks. These fight with great inveteracy, and endeavour to seize each other by the tongue. The Achenese bring also into combat the dial-bird *(moori)* which resembles a small magpie, but has an agreeable, though imperfect note. They sometimes engage one another on the wing, and drop to the ground in the struggle." —*Marsden's History of Sumatra*, pp. 236-8. London, 1783.

This extraordinary account is not without the confirmation which it needs :—

"The Indians, (of Manilla,) in common with all Malays, are passionately fond of Cock-fighting, but they are not permitted to indulge at pleasure this inclination. An Indian rarely walks out without a Cock, and as soon as he meets another Indian with one under his arm, the two birds are set down, and immediately engage: but battles with steel spurs are only permitted in a place formed for the purpose, which is farmed from the king, at a rent of twenty or twenty-five thousand

dollars: here the Indians assemble, and frequently bet on their favourite Cocks the whole of what they are worth. The fate of the gamesters is soon decided, for the Cocks being armed with sharp spurs, one or the other is killed almost in an instant."—*De Guigne's Observations on the Philippine Islands.*

But abstinence from Cock-fighting sometimes meets with its reward:

"The fort (at Achin) was but sorrily governed when I was there; nor was there that care taken to keep a fair correspondence with the natives in the neighbourhood as I think ought to be, in all trading places especially. When I came thither there were two neighbouring *Rajas* in the stocks, for no other reason but because they had not brought down to the fort such a quantity of pepper as the governor had sent for. Yet these *Rajas* rule in the country, and have a considerable number of subjects, who were so exasperated at these insolences, that, as I have since been informed, they came down and assaulted the fort, under the conduct of one of these *Rajas*. But the fort, as bad as it is, is guarded enough against such indifferent soldiers as they are: who, though they have courage enough, yet scarce any arms besides back-swords, cressets, and lances, nor skill to use artillery, if they had it. At another time they made an attempt to surprise the fort, under pretence of a Cock-match; to which they hoped the garrison would come out, to share in the sport, and so the fort left with small defence. For the *Malayans* here are great lovers of Cock-fighting, and there were about one thousand of them got together about this match, while their armed men lay in ambush. But it so happened that none of the garrison went out to the Cock-match, but one *John Neclin*, a *Dane*, who was a great gamester himself; and he, discovering the ambush, gave notice of it to the governor, who was in disorder enough upon their approach; but a few of the great guns drove them away."—*Mr. Dampier's Voyages*, vol. ii. *(Supplement.)* London, MDCC. p. 184.

Not wishing, therefore, to stimulate our youth to Cock-fighting, any more than we would lead them to over-sensitive refinement or spurious humanity, we will give no further directions about the rearing of Game-chicks (although it would be very easy to do so) than to state that, instead of allotting twenty-four Hens to one Cock, in a "ward," too, as has been currently published and believed to be a good plan, one Cock, with two, or at most three Hens, should be quietly located at large, in some spot where they are secure from giving or receiving interruption. The Cockerels three-quarters grown (an example to our lads) are not permitted to run as they choose with any society that may offer, but are withdrawn to quiet, rural, airy, grassy walks, where they are encouraged to scratch the ground as much as they like, to increase their means of livelihood, and are removed from the temptation (the possibility, indeed,) of having any but the most discreet female society. Cocks so educated are valuable for better purposes than for fighting and being betted upon. They become first-rate fathers of families. If a stock of Poultry is flagging and degenerate, the owner hardly knows why, the admission of a good Game Cock will soon set all to rights. His very look and air inspire health and cheerfulness into the dispirited Hens. He fertilizes the Eggs of every variety of Domestic Fowl, from the little Black Bantam to the portly Dorking. The issue of such crosses does not always resemble either parent, but it is sure to be something pretty, useful, and thrifty. "Bad the crow, bad the egg," κακοῦ κόρακος κακὸν ὠόν. *Vice versâ*, good the Cock, good the Chick; there is certainly something in breeding.

The males of almost every variety are lovely creatures, though tastes differ as to the preference. They do not attain their perfect plumage till their third year, and perhaps increase in beauty for a year or two afterwards. I think I have heard that, according to the modern rules of the Pit, birds are not admissible after they have attained a certain age and weight.

But all this is nothing to us. We are looking after ornamental, and, incidentally, useful qualities. The red birds, so called, are mostly splendid and dashing in their appearance; the yellow-legged tribe are very gaudy, bright, and strongly contrasted, though apt to be a little under-sized; the duck-winged grays, so called from their iridescent wing-coverts, which remind one of the speculum in a Duck's wing, are most harmoniously coloured, softly, yet brilliantly tinted, and only not sufficiently rare to be admired with enthusiasm.

As before observed, it is not our present task to enter into the minute and technical distinctions of Game Fowls. An industrious examination of them, with good opportunities, might lead to very interesting conclusions. Meanwhile, we will print one valuable and original record, as a commencement.

"There are evidently two varieties of the Game Fowl, if not more. (Assuredly.) The first, occasionally seen in the yard of the farmer, is a bird over the average size, and rather heavily formed; rather too much comb; breast quite black; neck, back, and wings of a very deep red; tail, glossy green. The Hen plain brown, with a lighter-coloured neck, sometimes a little streaked with ochre; legs light-coloured or white.

"The other variety, which I much prefer, and now possess, is a smaller Fowl, of a peculiarly light and elegant make; head very small and fine; neck, light orange-red; breast richly spotted, as are, also, in a degree, the wings; back, very rich red; tail, glossy greenish black; legs, dark. Hens, brown of various shades, the feathers being streaked with pale ochre down the middle, the same as Pheasants; comb, in the Cocks very small, and not large in the Hens.

"These are most high-spirited birds, and will soon gain the ascendancy of any yard. The eggs are slightly tinged with yellow-buff, rather small, and long in shape. Hens, good layers and sitters. Chicks, when first hatched, exceedingly pretty, being marked with a deep brown streak on the head and neck,

that continues down the back. They are hardy little things, and easy to rear. How many degrees removed from the Pheasant this breed may be, is difficult to say, (they are as widely removed as the North from the South Pole, or Dogs from Cats, as far as relationship is concerned,) but there is evidently a strong family likeness. (True, if we regard natural affinity merely.) The Pheasants here have no objection, at any time, to an occasional admixture (socially, we believe, not amatively) with the Domestic Poultry, I imagine: and the parties will often meet in our shrubberies, to partake of the berries of the Symphonia racemosa, or snowberry, of which they are both excessively fond, and will often jump up to some height to procure them. This breed of the Game Fowl we have found excellent and high-flavoured.

"Some years since, I had a Game Hen sitting in a cow-crib, with the usual quantity of Eggs. Long before any Chicks could be making their appearance, I several times noticed some living thing run from under the Hen on taking her up. This I afterwards discovered to be a fine mouse, that repaired there for warmth every day; and it was a curious sight, on the day the Chicks came out, to see it nestling among them, the Hen looking on most complacently. She was, however, very savage to human kind, and would peck your hand severely, if put into the nest.

"But Poultry, in general, enjoy mouse-catching, and will often, when a rick is taking in, watch for and sieze them with uncommon certainty, and then peck them to pieces and eat them."—*H. H.*

In confirmation of which, here is another case:—"I think I told you my Dorking and Spanish Hens are famous mousers. When a stack is got in, they prowl about, and wo to any unfortunate mouse that escapes the men's hands: while making off, they pounce upon it and eat it up. A few days since, a boy in my yard saw a weasel very busy in a pea-stack, driving

the mice about—the latter, of course, in great consternation. After a little while, two mice bolted, jumped off the stack to escape their implacable enemy, but fell into as bad hands; for they were both seized by Hens, pecked to death, and eaten up in no time. It was strange that a weasel should act as a jackall to fowls. Yesterday, I threw a large field-mouse to a Hen, and watched her peck it, and then eat it up." —*W. D. F.*

"A red and white Game Cock of any breed, is called a *Pile;* thus I have heard a Malay Cock that was white, with a red back, called a Pile, but I am not quite sure that the expression is applied to birds that are not Game. So the Staffordshire Pile must be red and white."—*J. S. W.*

The Furness Game Fowl.—"When, or from what place, this truly beautiful specimen of the Game tribe was introduced, is quite a mystery, even with the fanciers and breeders of it. The Cock is a bird of singular and handsome appearance. The neck, body, and tail are of a beautiful shining black, very rich and lustrous, with a saddle of light buff. The Hen is perfectly black, with occasionally a slight touch of gold in the hackle. In some specimens, both Cock and Hen had a golden hackle, but I should say that such had been crossed with some other variety."—*F. S. B.* "Besides this, there is the black-breasted copper-winged Furness, which is entirely black all over, except the wings, the feathers of which are copper-coloured. Then, very nearly allied to these in colour, is the Pole-cat Game Fowl, differing from the Furness only in having more of light or straw-coloured feathers upon him, his wings being of that colour, in addition to the markings of the Furness; his breast and the rest of his body being generally black, but sometimes his breast is shady or streaked.

"*The Piles* are universally known as Cheshire Piles, Staffordshire Piles, and streaky-breasted Red Piles. Cheshire Piles have always a thoroughly red back, with all the rest of

the feathers white, excepting occasionally that the breast is streaked with red also. Staffordshire Piles are similar in markings to the Cheshire, but of a yellower cast, (or what is called by breeders 'carroty,') approaching to an orange-yellow; the breast is also sometimes streaked with the same colour as the back. White is the predominating colour both in the Staffordshire and the Cheshire Piles. Streaky-breasted Red Piles are in all respects like the brown-breasted Red Game Fowls, with this addition, that the wings are partly white, and the tail also partly white.

"*White Game Fowl* are well known in the Midland Counties, and, in the opinion of some, are the most chaste and beautiful variety of all, and are highly prized by those who keep them. They differ in nothing from the class of Fowls to which they belong, except in colour, which is uniformly white. But for years past the breeders have been so much in the habit of crossing the different coloured birds, which no doubt improves them for fighting purposes, that it has caused great confusion in the feather, and rendered it extremely difficult to breed distinctly-marked birds with certainty."—*J. B.*

The famous breed of Game Fowls belonging to the Earl of Derby are black-breasted Reds, and do not differ from other birds of the kind, except in being a select family, with occasional judicious crosses, as with those of Lord Sefton, Mr. Germain, Mr. Potter, Mr. Folkes, and Dr. Taylor. Mr. Richardson has puzzled his readers by stating, "that the breed has never yet been known to turn tail, notwithstanding the pertinacious adherence of a *white feather* to the pile—a blemish that no breeding has been able to eradicate, but which, notwithstanding the well-known proverbial prejudice to the contrary, has, in this instance, been the never-failing concomitant of courage." Now a Pile is a peculiar kind of Game Fowl, not any *part* of one to which *a white feather can* adhere. Poor Richardson, being induced to write little books faster than he could clearly grasp their sub-

jects, perhaps did not understand his own expression; but through the kindness of the Earl of Derby, I am enabled to give an account of the breed, furnished by the person who has charge of the birds: it is still retained in its original purity, for the sake of its ornithology, not its gladiatorial value.

Mr. Thomas Roscoe states, "I have known the best of Game Cocks to turn off when out of condition, but not on any other occasion. The original blood has been in the hands of John Roscoe and family, as breeders to his lordship, for sixty years, and I should suppose it came to Knowsley in Lord Strange's days, the grandfather of the present Earl.

"The Cock is a fine round-shaped bird, with white striped bill; daw eyes and fiery; round and strong neck; fine, round, close-feathered hackle, feather points to shoulders; short, stiff, broad back, close-feathered and hard; tail long and sickled, well tufted at root; wings round and well prolonged, so as to protect the thighs; breast broad and black; belly small and tight in the pinions; thighs short and thick, well set to the body; legs long and white; smooth insteps; claws strong; nails long and white; the comb of a Stag is rather large and red, before being cut; weight about 5 lbs.

"The Hen is of a fine round shape, in colour resembling a partridge, with daw eyes, white legs, toes, and nails, and large and fanned tail. The Chicks when first hatched incline to yellow, with a darkish stripe down their back, changing colour as they advance in age. The Eggs vary in colour; I should prefer those inclined to buff; they are generally well-proportioned, inclining to length. The Hens are capital sitters and nurses.

"We generally cut the combs of the young Cocks when between six and nine months old; the spurs are left on to defend them on their walk, and are only cut off when they are penned up previous to fighting, in which state they spend about eleven days, and are trained by making them spar in

warm rooms, with boxing-gloves, made to fit the heel, and prevent them from hurting each other. The *feeding part*, on which so much depends, *is a great secret.*" [Every feeder has his own secret, and no two secrets are probably the same.]

"I have known them frequently attack men, dogs, calves, pigs, turkeys, and geese; and a single bird has killed seven of its opponents in one day, when fighting in our trial mains at Knowsley."

Neither John Roscoe, nor his son Thomas Roscoe, ever had anything to do with the feeding of the late Lord Derby's game birds, or the training them for the Pit on their own account, but there were always regular persons, called "feeders" or "trainers," who made it their business, and were employed by different gentlemen who had mains, and under whose special care and direction the birds were always placed for a certain time previous to their being brought out to fight. Roscoe, and his son, now living, having for many years seen the course and the methods pursued by these trainers, and under whose orders they had to act, have no doubt picked up and remember some of the secrets of the trade which used to exist among them, and to be kept with very great jealousy; but they were never employed themselves as feeders, except as any other servant might have been who was supposed to have some little knowledge on the occasion of the trial mains, which always occurred previous to the regular public mains of the match, in order to test the goodness of the different crosses from which the selection of the combatants was to be made. A system was universally adopted by all Cockers of distinguishing the several breeds, by special artificial marks attached to each cross, so that a Cock marked so and so, was put down with a certain number of Hens marked, say "light eyes," to breed at a particular spot or farm, the produce of which would be marked by the mixture of the parents' marks. The Eggs from these were all gathered up regularly, and set, and the Chickens put

out to be brought up at different farm-houses or cottages, and regularly looked after by old Roscoe, as Cocker, who kept a regular book, in which they were entered as correctly as any tradesman or mercantile firm would keep their accounts; so that at any moment Roscoe could tell Lord Derby how many Cocks he had of any particular sort, of what age, and where they each were, in case any should be wanted, or for the purpose of selecting the combatants for each main. It was necessary to ascertain that no other Cock was kept by the farmer, nor one too near a brood walk, nor any Turkeys, nor other nuisances that might injure the Cocks by setting them fighting; neither were the people allowed to hoffle the Hens, so as to prevent their scratching. These, and various other such matters, as the Dubbing, as the comb-cutting the young Cocks was called, the marking of the Chickens, &c., were the office of Roscoe, for whom a horse was always kept, that he might be able to go round to the distant farms, &c., and see that all was right, or else remove the birds elsewhere. The Chickens, as soon as hatched, were marked and then put out to nurse among the cottagers of the neighbourhood, who were allowed to keep as many Hens of any kind as they liked, and often obtained thus a sort of cross breed, which obtained some sort of notoriety. They were also paid a certain sum for each Chicken taken away. When Lord Derby was about to fight a main, he used to look over his Cock Book and select a certain number of each of the sorts he might choose for that particular main; orders were then given to Roscoe to bring up such Cocks from such and such a walk in his book, and those selected as fit were placed under his care in a particular building at Knowsley, till the Trainer or Feeder could come and see to them, which was always at a particular period before the public main. These birds were then put up by the Feeder as he would have done for the main itself, and Lord Derby, with a few friends in his confidence, assembled to witness the trial,

for which his Lordship almost always had down his own regular Setter, and report was regularly made as to the conduct of each bird in these preliminary combats. The birds selected for these, were of course not the very best, but generally chosen because of some slight defect or accident which would have been undesirable to have produced in the public Pit, but which did not interfere with the powers or prowess of the bird, and would thus afford a clue to judge of the qualities of his brethren. Some sorts were thus of course at once condemned, and others removed for further trial, and some selected for keeping as stock for breeding and fighting. According to these reports, a sufficient number of each approved sort were set aside from the stud-book for the regular main, and collected shortly before it, to be handed over to the regular Feeder, of whom Lord Derby employed several. The last, who fed for his lordship many years, was one Potter, who has now been dead some time, and his son has sometimes followed the same line. There used to be very great jealousy observed among the Feeders, so much so, that young Potter and Roscoe always slept in the Pen-room previous to, and during a main, and the key was never out of their possession, or the Feeder's; nor sometimes could even Lord Derby's son have obtained admission, unless with one of them, or as a very great and special favour. After Lord Derby gave up his mains, Roscoe, and, since his death, his son, has been employed in the care of the decreased number of Game Fowls about Knowsley, for the supply of the House with poultry and eggs, and with Hens for incubation; but a good many more were given to Roscoe to do as he pleased with; so that whenever the present Earl wanted to send some to foreign countries, he could not tell where to apply, and was obliged to have recourse to the present Roscoe to find out the small remaining stock. The correctness of the breed now in his lordship's possession, therefore, depends entirely upon him. The terms used by Cockers

for cutting the combs of Cock Chickens, is "dubbing;" and birds of the first year are called Stags. The late Lord Derby was so biased by his cocking tastes, as to consider the Fowl in its natural state not fit to be looked at in comparison to one that was properly dubbed, cut, and trimmed for fighting: nor need this surprise us, if we remember how much depends upon habit and fashion. Crop-eared dogs, nicked horses, perriwigged beaux, powdered and hooped belles, have all been admired as *the* beau ideal of their class; and even in 1850, we should rather like to see the face of a sheep-master on his sudden and unexpected introduction to a flock of long-tailed, undocked Leicesters.

That in some parts of the world Cock-fights are an attraction even to ladies of high degree, appears from a clever letter, dated June 15, 1840.

"The high-road leading from Mexico to San Augustin is covered with vehicles of every description. Those who are not fortunate enough to possess any wheeled conveyance, come out on horse, ass, or mule, single, double, or treble if necessary; and many hundred trudge out on foot. The President of the Republic himself, in his carriage and six, and attended by his aides-de-camp, sanctions by his presence the amusements of the fête. The Mexican generals and other officers follow in his wake, and the gratifying spectacle may not unfrequently be seen, of the President leaning from his box in the *plaza de gallos*, or Cock Theatre, and betting upon a Cock, with a coatless, bootless, hatless, and probably worthless ragamuffin in the pit!

"We went to the *gallos* about three o'clock. The Plaza was crowded, and the ladies, in their boxes, looked like a parterre of different-coloured flowers. But whilst the Señoras in their boxes did honour to the fête by their brilliant toilet, the gentlemen promenaded round the circle in jackets, high and low being on the same curtailed footing, and certainly in

a style of dress more befitting the exhibition. The President and his suite were already there, also several of the foreign ministers.

"Meanwhile, the Cocks crowed valiantly, bets were adjusted, and even the women entered into the spirit of the scene, taking bets with the gentlemen, *sotto voce*, in their boxes, upon such and such favourite animal. As a small knife is fastened to the leg of each Cock, the battle seldom lasted long; one or other falling every few minutes in a pool of blood. Then there was a clapping of hands, mingled with the loud crowing of some unfortunate Cock, who was giving himself airs previous to a combat where he was probably destined to crow his last. It has a curious effect to European eyes, to see young ladies of good family, looking peculiarly feminine and gentle, sanctioning by their presence this savage diversion. It is no doubt the effect of early habit, and you will say that at least it is no worse than a bull-fight; which is certain—yet cruel as the latter is, I find something more *en grand*, more noble in the

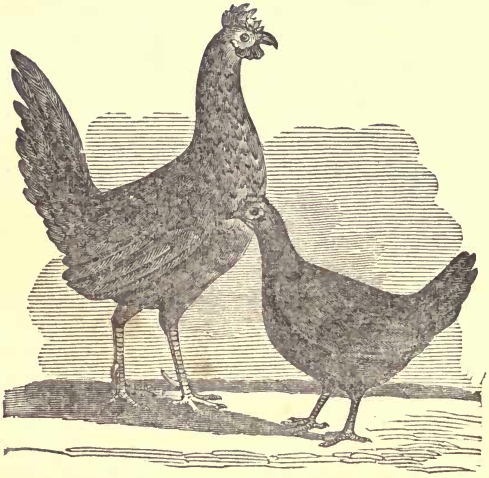
'Ungentle sport that oft invites
The Spanish maid, and cheers the Spanish swain;'

in the roaring of the 'lord of lowing herds'; the galloping of the fine horses, the skill of the riders, the gay dresses, the music and the agile matador; in short, in the whole pomp and circumstances of the combat, than when one looks quietly on to see two birds peck each other's eyes out, and cut each other to pieces. Unlike Cock-pits in other countries, attended by blacklegs and pick-pockets, and gentlemanly *roués*, by far the largest portion of the assembly in the pit was composed of the first young men in Mexico, and for that matter, of the first old ones also. There was neither confusion, nor noise, nor even loud talking, far less swearing, amongst the lowest of those assembled in the ring; and it is this quiet and orderly

behaviour which throws over all these incongruities a cloak of decency and decorum, that hides their impropriety so completely, that even foreigners, who have lived here a few years, and who were at first struck with astonishment by these things, are now quite reconciled to them.

"As far as the company went, it might have been the House of Representatives in Washington; the ladies in the gallery listening to the debates, and the members in the body of the house surrounding Messrs. —— and ——, or any other two vehement orators; applauding their biting remarks and cutting sarcasms, and encouraging them to crow over each other. The President might have been the speaker, and the corps diplomatique represented itself. In the evening a ball is given in the *plaza de gallos.*"—*Life in Mexico, by Madame Calderon de la Barca*, p. 164.

Among the amusements at Lima, so late as 1849, "The Cock-pit is a great attraction, and all classes frequent it. The Cocks fight in spurs, so the fight is soon over. My stay there was not long; a very fierce-looking fellow, with a sword-stick, said, 'Bet:' I did; a cock fell, and he pocketed the money and walked off. Amusing! Drinking coffee under the vines pleased me better."—*Walpole's Four Years in the Pacific*, vol. ii. p. 33.



THE MEXICAN HEN-COCK GAME FOWL.

THROUGH the politeness of Geo. P. Burnham, editor of the "American Union," Boston, I am able to present to my readers, portraits and descriptions of the Mexican Game Breed. It will be observed that the sickle feathers, proper to the Cock's tail, are absent in this variety. This arises, doubtless, from close breeding, or rather breeding in-and-in, as it is called. The neck and rump hackles are but indifferently developed. For confirmation of breeding in-and-in being the cause of this, I refer the readers to what Mr. Walker says concerning Sir John Sebright's Bantams, in his treatise on Intermarriage. I have occasionally witnessed the same thing

occurring among our own smooth-legged Bantams. Such are reputed to be the best fighters. In a letter I received yesterday, from my friend, David Taggart, Esq., of Northumberland, Pa., he says: "I was at Milton a few weeks, and stopped at the public-house of Mr. Frederick Sticker, who has been for many years, a breeder of Game Fowls. In his Poultry-yard, I discovered two Fowls, that, with all my Chicken experience, puzzled me, at first glance, *to know their sex.* They were both Cocks, one eighteen, the other seven months old. Both had their heads shaved in regular Game-chicken style, and neither had a feather on him that indicated a male bird, with the exception of one or two of the longest tail-feathers, slightly curved and bent over. I brought the younger one with me, for the sake of his portrait, which I hope to send you in my next letter. He has, you will observe, (vide Portrait,) no bright-coloured plumage, no long pendent feathers on neck or back, nothing, in fact, to mark his sex, but a proud stately gait, and erect mien. He is full-blooded Game, and old Sticker calls him a *Pheasant Fowl.* It is only occasionally they appear among his stock, deriving their strange appearance from remote ancestors;" and, my friend, you might have added, from breeding in-and-in for many years past; at least, I will venture to say so, without knowing further particulars in this instance. Of two things I am quite certain, viz.: that Hen-tailed Cocks have a popular reputation of being great fighters, and that they generally, if not always, result from breeding in-and-in. I will here take the liberty of quoting Dr. Bennett's communication to the "American Union" newspaper, concerning the Mexican Game Fowl, whose portraits are given above. He says: "These Fowls are in many respects remarkable. The Spanish name, "Gallus Gallenos," or "Hen-cock," (Latin—*Gallus Gallinaceus,*) at once introduces us to their principal peculiarity. The Cocks, to all intents and purposes, resemble ordinary Hens—the only

marked difference being in the size of the comb and wattles. They are comparatively destitute of neck and rump hackles. The colour is usually similar to that of a Partridge; the legs are dark and smooth, the eyes lustrous, and the plume-feathers are shorter and less brilliant than those of other Fowls.

In size, they compare favourably with other Game Fowls. Their general aspect is ferocious, and their movements are lively and graceful. They are what "cockers" call *fast fighters*. The particular Fowls here described, one of which is represented in the picture, are those obtained by me from John Giles, Esq., of Providence, and Dr. Eben Wight, of Dedham, and are now owned by C. W. Mead, of Chicopee, and Samuel Parker, of Worcester.

The *Hen* portrayed above, is an imported Cuban Game Fowl, now owned by Mr. Mead. This breed are perfectly black, and have all the points of the best sorts of Game Fowls. Their prowess is wonderful, and it is rarely the case that one of them survives a defeat.

The following letter from Col. Adam G. Summer, of Pomaria, S. C., to the author, gives so ample and beautiful a description of this Fowl, that further comment, here, is unnecessary:—

"This unique variety was introduced in 1844, by General Waddy Thompson, of that State, on his return from Mexico. It is a favourite variety with the Mexicans, and their Mexican name is "*Gallus Gallenos*"—Hen-Cock, from the fact that the male birds have short broad tails, and, in colour and plumage, the appearance of the Hens of the same variety differing only in the combs—which is very large and erect in the Cocks, and small in the Hens.

"In Mexico, they are fought without training, and the Common Game Cook will not attack these hen-looking Cocks until it is too late. The Mexican Cock is generally Pheasant-

coloured, with occasional changes in plumage from a light yellow to a dark gray, and recently in the stock in Carolina there has been a tendency to black tail-feathers and breast, as well as an inclination to gray and light-yellow, and with a slight approximation to red hackles in some rare instances.

"The majority of the whole stock, however, preserves the original Pheasant-colour. This variety has a strong frame, and the largest and most muscular thighs of any Fowl I have as yet seen. This gives quick power to his fierce action in fight, and, if not killed immediately, he is sure to be victorious. I do not know whether they will fight well in a cold climate like yours. The Cocks are distinguished by large upright combs, strong bills, and very large lustrous eyes. Their legs vary from a dirty to a dark green-colour. The Hens differ so little from the Cocks that a description is unnecessary.

"They are as good layers and sitters as any other game breed, and are good nurses. The Cock, which was the progenitor of all the stock now in the United States, was presented to Gen. Thompson, by Gen. Santa Anna, just before he closed his official career as Minister to Mexico, and was victorious in a large main, fought by the famous Cock-fighting Mexicans. Gen. Thompson sent to Queretaro for some Hens, and thence sprang all the true Cock-Hens now in this country. Those sent by my brother, Mr. Summer, to Mr. Giles, Dr. Wight, and Mr. Burton, are from a pair presented to him by Gen. Thompson, out of the original stock.

"Their crosses on other game breeds are highly esteemed here as fighting Fowls, and their muscular forms adapt them as well for the *spit* as for the *pit*. Wm. Summer, of Pomaria, S. C., breeds them in their purest state, and regards them a valuable Fowl for domestic purposes.

"A. G. Summer."

Mr. William Summer, in a letter to the author, dated "Po-

maria, S. C., July 23d, 1850," in speaking of these Fowls, says :—

"I had concluded to send you a Hen of mine to make out the pair—one that General Thompson sent me as particularly fine; though I say, in all sincerity of heart, that the pair sent by me to Mr. John Giles was the best pair I have ever bred. You are fortunate in securing them from him, as they will give the very best representation of the breed when in full feather. Mr. Giles, in a recent letter, informed me that the Cock had improved very much."

Colonel Summer, in a letter of July 8th, 1850, observes :—

'Santa Anna, or, properly, 'Hen-Cock,' (*Gallus Gallenos*—Spanish,) were brought from Queretaro, by Hon. Waddy Thompson, and a pair presented to us by him has been bred pure. I have their history from General Thompson."

Of a Fowl denominated the Yankee Game, Dr. Bennett gives the following description :—He says, "This Fowl was originally produced by a cross"—(I don't like crosses of any kind, except, perhaps, a first cross, and that only for the *table*, not for *breeding purposes*,)—"between the Plymouth Rock and Indian Game Hen. But a few only have been produced from this mixture. I have since bred, and shall continue to breed, this race, from the Cock and Hen described in the preceding articles; that is to say, from the Spanish Cock of Mr. Stacy, and the wild Indian Hen of Mr. Estes.

"This variety combines the great strength and size of the Wild Indian Game Hen, and the sprightliness and beauty of the Spanish Game, and thus partakes of the general characteristics of the two best kinds of Game Fowl. For loftiness, carriage, hauteur, compactness of form, healthiness, neatness, sprightliness, and general beauty, this sort are unrivalled; and, so far as fine flesh and captivating appearance are concerned, they are, undoubtedly, the best breed in America." So says

Dr. Bennett; but I say, with due deference, that, being *mongrels*, they must, of necessity "cry back" to one of the original progenitors; and the first intimation of "crying back" will prove but the beginning of the end; so that, in the language of Peisthetærus, the breeders and fanciers of mongrels shall still have to utter their complaint:—

"Plague on thee! but this bird of mine croaks 'back again.'"

I cannot better illustrate this point, than by quoting a part of a letter which I have just received from my friend, Mr. Taggart, of Northumberland, Pa. He says, "In the spring of 1839, my father purchased a pair of pure Creole Fowls in Reading. Having charge of the Chicken department, I bred them pure for two seasons. After that, I introduced one-eighth or more of the blood of a large yellow breed of Fowls, to give them additional size and strength; always taking care to preserve the white necks, spotted bodies, and blue legs of the unadulterated Creoles. Notwithstanding this precaution for several years, I had among my broods a number of brown or yellow Chickens. At last, the strain ran entirely out, and now my Creoles are as pure, and breed as certainly as your Shanghaes; but they have also *gone back to the size of their Reading progenitors.*"

An elderly friend of mine, residing some eighteen miles north of Philadelphia, told me, last summer, that the Frizzled Fowl was introduced among his Poultry, and, not being pleased with the result, he made it a point to kill off all the young of that variety, before they were old enough to breed from; and that he was seven years in thus restoring his flock to their original condition; fewer and fewer appearing each year, until about the seventh year, when, and since, none appeared.

I take pleasure in presenting the following letters of my friend, Mr. Taggart, in relation to a peculiar variety of Game Fowl in his possession; also, in relation to some Chittagongs

he obtained of me during the last summer. They will be read with interest, especially as they abound, also, in many important miscellaneous remarks and suggestions:—

DR. J. J. KERR:

Dear Sir:—I certainly owe you a long letter, and if I am not able to pay it to-night, you may very soon expect another, and, *this time*, without fail.

Our term of Court came on early in the month, and lasted two weeks. This, of course, had to be attended. Since then, I have been waiting on my friend, Dr. Robt. B. McCay, to *sketch* a Chicken or two for me, which I have thought sufficiently remarkable to deserve a place in the book. * * *

As ignorance is in all cases preferable to error, it is certainly a writer's highest duty to know well what he undertakes to teach. Impressed with this idea, my dear sir, the aid I shall be able to afford you in your very laudable enterprise, must, of necessity, be trifling and unimportant. I may furnish a few striking facts in support of certain doctrines you will be likely to advance. And this I will do right gladly, for I consider a man who writes a book on a useful and interesting subject, one of the greatest of mankind's benefactors. . . . .

Accidental qualities may be transmitted from parent to child, as the following will show:—

A friend of mine, the late Robert Grant, owned a fine large breed of Game Fowls—shawl necks, or Irish grays; the Cocks weighing seven pounds. One of his roosters, when a mere chicken, stepped into the fire, and roasted off his toe-nails. He hardly ever got an offspring that did not, more or less, show his parentage, by defective toes. I procured a couple of his progeny, and have the Hen yet. Her Chickens and *grand-chickens* have the same signs. Is it not wonderful, that a mere accident should thus mark at least four generations?

Two years ago, I purchased, from a gentleman in Blooms-

burg, a very odd-looking Chicken, a Pullet four or five months old. Though very small, weighing now not more than two pounds, (see Portrait,) she has the appearance and characteristics of Dr. Bennnett's Wild Indian Game Hen, except the vast difference in size. I was struck with the resemblance. She is firm-fleshed, short-feathered, and almost combless; and has the most peculiar gait I ever saw. Her pertinacity in sitting is most extraordinary. I will try to send you her portrait. Her mother, no larger than herself, was imported from *Calcutta*. And, though my Pullet is the result of crossing with an ordinary Game Cock, the breed is so strong that she resembles her mother in all respects, and her sire in nothing. You may form some estimate of her fighting blood, when I tell you, that Cocks out of her, by a Booby (the meanest of all gallinaceous athletes) or other Dunghill Fowl, are a full match for our best Game Chickens.

Is not your "woolly" Hen, identical with the breed termed *frizzled*, with feathers reversed, like the quills of an angry hedge-hog? If so, I can easily procure you a husband for her.*

You wish to be posted-up in Aquatic Birds. I know somewhat of these, but probably not so much as yourself. In regard to Ducks, they are much more prolific than they usually have credit for; and, even for Eggs, can be made a profitable bird, if well fed and properly managed. Any common Duck, so treated, if not old, will yield, in a season, one hundred or more large, rich, and delicious Eggs. When they lay, it is daily or nightly; and, if kept from sitting, which is easily done by changing their nests frequently, they will lay, with little interruption, from February or March until August. But the trouble is, a Duck lays only when Eggs are most abundant, while Hens' Eggs may be procured *at all seasons*.

The young of Ducks seldom die of disease; and if *cats* and

* The two varieties are entirely distinct.—Ed.

rats are exterminated, as in all cases they should be, there will be no trouble in raising almost as many Ducks as you have Eggs. One year, from 94 Eggs, I had 91 hatched, and raised 87. Twenty-four of these were Musk, or Muscovy Ducks, as they are erroneously termed. In speaking of the prolificness of Ducks, I don't think this variety should be included. They lay comparatively few Eggs. Ducks come early to maturity, being nearly full grown, and in fine eating order at three months old, far excelling, in this respect, all other Poultry, except Geese.

Of the large white Aylesbury, and the still larger Rouen Duck, I know nothing but what I have read.

But of all Poultry, Geese can be raised with the *greatest ease*, in the *shortest time*, and at the *least expense*, provided you live in the country, or in a village where grass grows in the streets and alleys. I have only reared them once, but I am certain Goslings can be brought up on grass alone. Though, of course, they grow much faster if better fed. I fed mine well, on Indian meal and milk, and sometimes on corn—this in addition to good pasture—and see the result. They are of common blood, and not remarkable in size. At 33 days old, one weighed 5½ lbs.; at 47 days, 6 lbs. 15 oz.; 54 days, 8 lbs. 3 oz.; 64 days, 8 lbs. 14 oz.; at 93 days, 11¼ lbs., when I killed them. For Eggs, Geese are no "great shakes;" but, to use a Crockettism, they're —— on a grow.

You have not asked my views on Turkeys; but what little I know, I may as well impart. I raised two broods, last summer, by way of experiment. The first lot, to the number of fifteen, were hatched in June, under Hens. With these I was very successful, having lost but one. The Gobblers now weigh 11 or 12 lbs.; the Hens, 7 or 8. I was very careful of them, feeding them on the curds of milk, and waste bread, soaked in milk, until they were four or five weeks old. After that, I was not so particular: I kept them in the garden, and by the time they

were eight weeks old, they had so stripped the onion-beds that not a top was to be seen. It no doubt benefited them greatly. With a later brood, I was not so fortunate: I raised but the half of them, and they are stinted and puny. On the whole, Turkeys may be set down as tender birds, and their rearing attended with very uncertain results.

Great mistakes are sometimes committed by writers on Poultry, in regard to the various periods of incubation of Hens, Ducks, Turkeys, etc. I have taken some pains to *ascertain* the true time of each, and I will give you the result:

A Hen, under ordinary circumstances, sits	20 days,
A Guinea Fowl	25½ "
A Duck	26 "
A Turkey	27 "
A Goose	29 "
A Musk Duck	32 or 33 days.

From these figures you will find but small and infrequent variations. I never knew but one very decided exception. Early in last March, I got a neighbour to set one of his Hens for me. She was extremely poor, and her nest was in a bleak, open, and empty hay-mow. March was a very cold month, and the winds played all around her, above her, and *under her*. She sat almost on the bare boards. About the 22d day, I began to think it was "no go," and broke one of the Eggs. I found, to my surprise, a live Chicken, which still lacked four or five days of perfection. On the 27th day, she brought out eight rather puny Chicks. Some of them I was able to raise. As the Hen began to keep her nest several days before the Eggs were given to her, there can be no mistake as to the time. I always note it down.

It has been asserted that Hens' Eggs have been hatched in eighteen days. But this, you may depend, never happened since the first Hen brought forth her first brood in Adam's

chicken-house. It is *contra naturam*. Incubation may be prolonged, but not hastened."*

Passages of the following letter from Mr. Taggart I have incorporated in other parts of the book. I have concluded, however, to submit it in full to the careful reader; and also a briefer epistle from the same hand, correcting one or two trifling errors in former communications, and adding to some views previously herein expressed.

DR. J. J. KERR:

Dear Sir:—Your very flattering letter of Wednesday, induces me to resume my pleasant undertaking. I regret that I have not more leisure to do justice to my friend, myself, and the subject.

You express some little surprise at the minuteness of my observations. But please, remember, that from my earliest boyhood, I have been a devoted, constant, and *intense* admirer of nature's live-stock. This disposition has grown with my years, and will follow me, I trust, unaltered and undiminished, to the grave. Menageries, Cattle Shows, and, most especially, Poultry-yards, have always been my delight. When six or eight years old, I knew almost every Cock and Hen in the village. And, though my own stock sometimes numbers two or three hundred, I can individualize, nay, give the age, history, and genealogy of every Chicken. Thus much for your friend's experience, and his reliableness as an observer.

In these hasty and ill-digested sketches, it must of necessity happen, that many things are written which will neither

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* I have had Chicks to hatch out on the evening of the 18th day; having been set early in the morning of the first day, of course, the period of incubation was some ten or twelve hours over 18 days. My friend, Mr. Cope, had one or two Chicks to hatch out on the 27th day; none have come out with myself later than the 23d day.—ED.

please the critic nor enlighten the poulterer. These it will be your province to curtail, enlarge, alter, or *expunge*, according to your older and better judgment. The clay is in the hands of the potter: let him mould it as he will.

There is one very important item in Poultry-breeding, which I have never seen sufficiently dwelt on in books, and that is, the great advantage of having early spring-hatched Pullets, to lay in October, November, and December, when Eggs are scarcest, and command the highest price. I never kill a Pullet hatched earlier than May, until very cold weather, or some other circumstance, has put an end to her winter laying. I have seven young Hens, a cross between the Creole and Booby, hatched in April, and *all* are now laying. One began on the 18th October, and has laid 36 Eggs; and some of them, if well managed, will lay all winter. On this account, early maturity is very much to be desired in Chickens. And no Fowl is longer in attaining maturity than a *pure* Booby, or Bucks County Pullet, at least as far as Eggs are concerned. Though hatched in March and April, they seldom lay in autumn, while some other breeds feel bound to produce when 6 or even 5½ months old. In estimating the value of breeds, surely this is a consideration of great importance. At all events, I will not recommend the Boobies, though, when crossed with Creoles or other prolific birds, they do well enough. In fact, they do very well themselves in spring and summer; but are not much worth in winter.

Last fall, I had a Game Pullet that began to lay on the 14th of September, though she was hatched on the 29th of March. I have never known greater precocity than this, unless you are right in the age of my brown Chittagong. She began to lay October 19th, and was, consequently, but five months old, if you are not mistaken in her age, as I think you are. Be that as it may, if mine are fair samples, the Chittagongs are highly commendable, not only for their enormous size, but for the

early and rapid production of Eggs. But, "*nous verrons,*" as old Ritchie used to say.

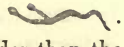
If a goodly number of early Pullets of a prolific breed were kept over, and well fed, instead of slaughtered to fill the paunch of some impatient glutton, the great scarcity of Eggs in late autumn and early winter, would, in a measure, cease.

It strikes me a Hybrid (the first cross) will come to maturity sooner than did either of its progenitors; and that a cross between the Creole and the Polish or the Black Spanish would produce the best laying Hens in the world. If I am able to procure either of the two last mentioned, I will try it. All these things are worthy of inquiry, and should be fully investigated.

If mongrelizing be, in no case, followed by permanent results, how is it that the Dorkings, which are said to be a *mixture,* have been so celebrated for many years? If, as you assert, and as I am prone to believe, no permanent intermediate race can be established by crossing, it follows, *ex necessitate,* that every well-defined breed has now, or has had a separate and distinct original in the wilderness. All could not have descended from the Gallus Giganteus and the Bankiva, for all would in a few years revert back to the type of the one or the other. But here, instead of furnishing you with my experience, I am presumptuously splurging out among theorems and speculations—and that is not my task. *Facts!* 'them's the jockeys for me!' as you very eloquently remarked about the Shanghaes.

When I was a little boy, I owned a very odd-looking sort of Fowls, called "Creepies," or "Creepers," from their exceedingly short legs; and another kind, called "Bunties," which had no tails, and, in fact, no place for a tail to grow—they had no rumps. The Creepers I have seen of all sizes, from two pounds to five, with legs much shorter than Bantams, and entirely bare. Of these varieties, I have never seen more

than a passing notice; and surely they are sufficiently remarkable to deserve greater attention. I do not mean that the Creepers are very distinctive in any other feature than their short legs; for I have seen them of all colours; with combs double and single, legs yellow, black, blue, and white; with crests, and without them: and so of the other sort. Nay, I have seen Fowls that were both "Creepers" and "Bunties." In crossing the first-named with long-legged Chickens, if I remember correctly, the Hybrid had either the short legs of the one, or the long legs of the other—no half-and-half—a full Creeper, or no Creeper at all. While, in mixing the Bunties, you will sometimes get one sort, and sometimes the other—but generally an ugly-looking monstrosity, with a piece of a tail, pointing towards the ground. But these are small matters, and you can notice them or not, as you like.

I do not remember writing to you of a very careful dissection my friend, Dr. Robt. B. McCay, and myself made of a young Turkey, suffering with gapes. It was very small and stunted from its birth. It had great difficulty in breathing. Its lungs and other viscera seemed sound, but the windpipe was almost filled with a number of double, and sometimes triple-headed worms, which adhered with the utmost pertinacity to the sides, raising, at the point of contact, an excrescence or rough swelling. The worms were an inch in length, and of this fashion:  . The extra heads, or necks, are much more slender than the main trunk, and colourless, while the other is dark. I have very frequently found them in Chickens, while in others that manifested the same external symptoms, *there were none to be found.* Whether this parasite is the *cause* of the disease, or one of its *effects*, I am unable to say without further experiments.

I have seen it stated somewhere, that a Hen, if allowed to raise her own brood, will sit but once in a season. This is a very gross error. I have known Hens to incubate three

times in a year, with good success, and raise their own broods. Nay, *four* times is possible, if you will be unwisely troubled with a November brood. With a *young* Hen, the desire to lay again soon returns, and she abandons her flock at five weeks, and sometimes four, and even *three weeks*. Under these circumstances, a Hen that brings out her early brood on the first of April, deserts them about the first of May, lays two weeks in an *undisturbed nest*, resumes the task of incubation, and, on the 4th of June, brings out her second. At the same rate, before the middle of August she hatches her *third* litter. This is often the case with young Hens, that have been well fed during their maturity, and not cooped up. Old ones, whose ovaries are measurably exhausted, are not in such a hurry to re-commence operations. I have seen such ones running with their Chickens until they were nearly grown.

The *turning* of a sitting Hen's Eggs, is, I verily believe, *a humbug*. In the first place, it seems unnecessary, as the embryo is said *to be always uppermost*, let the Egg rest as it will; and, in the second place, the Hen herself never turns them, except by accident. Sometimes, and especially when she resumes her nest, the Eggs are not fixed to her liking—they do not *fit* properly, and then she gives them a turn or two with her beak, to adapt them to her fancy; but certainly not to get the other side up, as many people believe.

I can put your readers in a sure way of finding out how many Chickens they are going to have, before the Hen is half done sitting. I can tell very easily at the end of a week, but it is safer for a green hand to wait two or three days longer. The advantage is, that by taking out the unfertile Eggs, you give the others a better chance; and, if you have two or three Hens contemporaneously sitting, two may be able to cover the good Eggs of three, and the third be ready for a new batch. This is sometimes desirable. And now "pro modo operandi." Take the Eggs (very carefully, of course,) into a darkened apart-

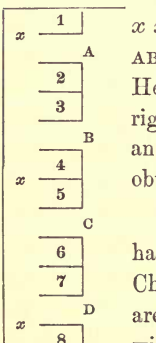
ment, (the darker the better,) where, if possible, the sun shines through a single crevice. Hold the Egg up to the ray of light, and if it is bound to hatch, all below the vacuum in the "butt" will be dark-coloured opaque; if not, it will be light-coloured and yellowish, and not entirely impervious to the sunshine. It sometimes happens a whole batch is worthless. In this case, it is better that a Hen should cover them eight or ten days, than twenty.

With double-yolked Eggs I have tried some experiments, always putting them under Hens, if in season. And though I have thus treated more than twenty, I have never got a live Chicken. The first year I had my Creoles, one of the Eggs was double, and I put it under with the rest. When the brood was all hatched, I opened it; and, to speak *pathetically*, there, in the repose of death, lay two perfect *disunited* Chickens. They did not possess strength enough to get out. This is the nearest I ever came to success. In the same season, an ordinary-looking Egg, of the *same* Hen, when half hatched, was accidentally broken. I took it from the nest, and discovered, to my astonishment, an embryo, with two beaks, and almost two entire heads. The heads branched at the eye, exhibiting a perfect eye on the outside of each *caput*, and a deformed or double one between them. In two or three other cases, the vital principle of the one half seemed to germinate for a time, but, probably on account of the barrenness of the other half, never came to maturity. But in a large majority of the cases, I might as well have set my Hens with *bricks*.

Talking of unnaturals, reminds me of a young Cock I once had, whose legs were frozen off at the knees. He grew to be a fine healthy Fowl; and, the next summer, stumped it about as gaily and as *gallantly*, as his more fortunate brothers. A black man, who sometimes worked for us, was exceedingly anxious to procure the breed; because, as he said, "dey couldn't scrash de garden;" * * * * * *

* * * * At last we missed him, and I always thought the *nigger* stole him for the sake of the breed.

The nests of sitting Hens should be made shallow—not more than four or five inches deep—so that, in stepping in, they may not break the Eggs by a big jump; as they are very apt to do, if the nests are deeper. Another improvement is, to turn the box, that the opening may face the wall. Let the boxes be placed on a platform raised a few inches above the ground, with only two nests between the ports of entrance, that the Hens may not be induced to enter the wrong ones by having to pass them. See diagram :—



x x x—Gangway between nests and wall.
ABCD—Ports of entry.
Hen No. 1 goes to port A, and turns to the right. No. 2 goes to same port, and turns left, and *so forth*. The advantages of this plan are obvious, for it insures both secresy and repose.

You ask my views on Chittagongs and Shanghaes. I have partly given them already. The Chittagongs, though they may not breed all alike, are certainly huge and magnificent birds, and withal precocious. My young Stag, unlike most other large Fowls, is stately as a monarch, which he certainly is in my Poultry-yard. One Pullet has already won for herself "imperishable laurels" as a layer, and the other has already entered the lists. The Shanghaes are very *pure-looking*, and very beautiful. The Pullet is the handsomest she-fowl I ever saw. She looks like a Durham heifer, if I may *force* the comparison. But the Stag, poor fellow! I am afraid is going to die. If he does, look well to your chicken-roost when I come down. He seems very much indisposed,—his eyes are watery, and the parts about them swollen,—his feet

are cold, and he has a fashion of shaking his head, which, certainly, does not betoken good health. Though he has at times been quite lively, he has always remained extremely thin. His frame-work is gigantic, but he weighs less than 6¾ lbs.

I hope you will give Mr. Allen's Appendix *a dig*, as regards the weight of large Fowls. He says, "it takes an unusually fine Cock of *any breed*, to weigh 7½ lbs." This fall, I lost a Booby Cock, fifteen months old, that weighed 10¼ lbs., and when he took ill, he was rapidly on the increase. And I doubt not, in another year he would have weighed 12 or 13 lbs., but he was much the finest of his breed. They usually weigh 8½ or 9 lbs., when a year old. I have a Hen of that sort, that weighed last spring 8¾ lbs.,—the most of the Hens from 6½ to 7½. Then, if Boobies so greatly exceed Mr. Allen's ultimatum of 7½, what will Cochin Chinas, Shanghaes, and Chittagongs do? Poke it at him! *"I'll back you!"*

In my last letter, I said something in favour of Ducks and Geese, but not enough. Among other things, I said they were hardy. This is so true, that I have never seen an adult Duck or Goose sick or drooping, and scarcely ever a young one. If they are lost, it is by *cats* and *rats*, but seldom by disease. While Turkeys and Chickens may be seen moping in corners, gasping and coughing, Ducks and Geese waddle about in comfortable and greasy health,—always ready for their rations, and, unless barbarously starved, always fit for the table. All that is said or written about fattening them is vain and idle. Fed abundantly in any way, at liberty or "cabined, cribbed, confined," a grown Goose or Duck is generally *too fat* for table use, unless large quantities of the "adipose" are taken from it before cooking. I have seen whole platefuls of "goose-grease" abstracted from a single bird, though no extra pains had been taken with it. Then what is the use of cruelly stuffing them, or more cruelly incarcerating them, as is often recommended?

It is a mistake to suppose that a pond of water or a running brook is essential to the thrift of either Duck or Goose. It may afford them facilities for washing their feathers; but all the water they *need*, is a panful, at all times by them, to drink. No one has had better *luck* with them than myself, and my web-footed bipeds never saw river, pond or brook,—nothing more extensive nor permanent than a mud-puddle after a shower.

While on the subject of web-feet, I will tell you the story of Isaac O'Sanner's Game Chickens, lest you should never have heard it. Of course, you will not put it in the *book*, for fear there might be some mistake about it. Isaac had been to a Cock-fight, and was so pleased with the pluck of the combatants, that he determined to have some of the same. A friend promised him some Game *Cock's* Eggs, and, in fulfilment, sent him those of Ducks. Isaac set them under his Hen, and though he thought they were very slow about coming out, he waited patiently till they broke the shell. But *then*, there was no limit to his admiration and delight. He took one up in his hand. He looked at its bill, and exclaimed, in great glee, "Jiminy, what a neb! If he takes hould, he'll niver let go!" He glanced at its feet, and that capped the climax of his extacy, and says he, "What a fine wide fut he's got!—*all — would'nt thrip him up!*" But, alas for the vanity of human hopes! Isaac had to leave home, and the care of the Chickens, for a season, devolved on his brother Amos. Now, in feeding, it struck Amos that the Game Chickens shovelled up a great deal more than their share, owing to their broad "bakes." And being a great lover of justice, he picked them up, and whittled their bills down to a point, that the others might have an even chance with them. In consequence of this treatment, Isaac O'Sanner's Game Chickens never won a battle.

As food for Poultry, many things are recommended, and many things are good. But of all grains, economy properly considered, Indian corn is probably the best as a standard—chopped for small ones, and whole or chopped for large and half-grown Fowls. When made into meal, it can be mixed with the surplus milk, or with the water that meat has been cooked in, with great advantage. For young and growing Poultry,—Turkeys, Geese, Ducks, or Chickens,—milk in any shape, is *most particularly beneficial.* Fowls are very fond of wheat, but it is too expensive. Oats are (or *is*, which say you?) light, and consequently not so cheap as they seem. One bushel of corn is worth two of oats, for Poultry, and for almost any thing else. As for rye, Chickens will scarcely eat it. In winter, when Hens are of necessity prevented from getting green food for themselves, they should be well supplied with the leaves of cabbage, beets, and other vegetables, and with the half-rotten apples. The very eagerness with which they devour such things, after a long abstinence, is proof of their utility. But of all *extras* for Fowls in winter, meat is the most beneficial—from chopped beef-steak to cheese-maggots. Furnish a Hen with animal food, and occasionally something *verdant*,—put her in comfortable lodgings, where water and pebble-stones and *pounded bones* can be had at all times, with a dust-hole *to wash herself in*,—and, if she be young, she will quite probably forget that it is winter, and proceed to lay. *Old Hens* cannot be so easily deceived. They are too cunning. It is as much as a bargain to get them to lay by the first of April. These stubborn old *matriarchs* should be served like traitors to liberty—have their tails cut off, just behind their ears; for, according to Napoleon, they have passed the grand climacteric of a *female's usefulness.* You remember what he told Madam De Stael. "But my pen wanders." Let us get back to Chicken-feed.

Pounded oyster-shells and slacked lime are considered

excellent; and so they are, as containing calcareous matter for the shells of eggs. But crushed bones are as good for this, and better, for the Fowls will devour them ravenously—and much better in another respect. Any one who has undertaken to pound a fresh bone, must have noticed that in three or four slams he almost hammered it into *meat.* In fact, it contains a large amount of marrow, or greasy substance. Hence, the double advantage of feeding pounded bones to Hens in "wintry weather."

As a general rule, April is the best month for Eggs, and December the worst. They might be ranged in this order: April, May, March, June, July, February, August, September, January, October, November, December. Of course, this arrangement would be much modified by circumstances. If Hens are encouraged to sit as early and as often as possible, the products of May, June, and July would be much reduced. And if many early spring Pullets are kept, the yield of October, November, and December will be vastly increased.

I enclose you not only a good likeness of the Fowl, which I promised you, but a most excellent picture. It was done by Dr. Robert B. McCay, and is the first Chicken *that ever sat for him.* Is it not admirable? You already have a full description of the Fowl, in my last letter. The Doctor has given him the spurs of eighteen months, instead of those of seven or eight months; but this is the only noticeable error, and easily corrected. I wish you could return me the portrait, when you have done with it.

I fear from the looks of my other engagements, that this must be the last of my contributions. I regret sincerely that the agreeable task is done; and if I had had more leisure, my efforts should not only have been better finished, but more numerous. As it is, you are entirely welcome to them. And believe me, for the present,

Your very tired and sleepy friend,

DAVID TAGGART.

The name "*Gray Eagle,*" in the following letter of my friend Taggart, is the local name of a mongrel or mixed Fowl, in this vicinity, partaking freely of the blood of the Shanghae, Chittagong, and Malay varieties. They grow quite large, but like the Chittagong, which they nearly resemble, do not breed uniformly in point of colour :

DR. JNO. J. KERR :

Dear Sir :—As I intend starting for Harrisburg to-morrow, to join in the work of senator-making, I find it necessary to send you a few explanatory lines this evening. My worthy friend, Dr. McCay, promises to finish off the pictures, and mail them to-morrow, so that you will receive them on Tuesday.

The little half Jungle, or Game Hen, has been already described, but I made a small mistake in regard to her weight. She looks so very little that I estimated her at two pounds, whereas, she draws *three.* Her feathers are extremely short and close, and her build compact and solid. Her offspring out of blooded Cocks are the best Game Chickens I ever saw. I intend to cross her with the "Sammy Rusk" Stag, who, though only eight months old, weighs six and a half pounds.

In regard to the Chittagongs, whose portraits will be sent you in a group, I have already written pretty fully. In the biggest sense of the word, they are majestic and noble-looking birds, and for Eggs, I will put the brown Pullet against the world. She has recovered from her sickness, and has resumed laying with as much, or more vigour than ever. The gray Pullet is also laying remarkably well, and has been, since the 7th of December. This I take it, is good work for winter. The Stag, seven and a half months old, weighs nine and a half pounds, and, but for the *hard service* he has undergone since his arrival at puberty, he would have drawn considerably more.

He has been running with a dozen or more laying Pullets. The brown Pullet, seven and a half months old, weighs nearly eight pounds; and the gray, less than seven months old, draws seven pounds and three ounces.

The Gray Eagle Stag I purchased from Miss Castor, will make a rouser. From his marks, I take him to be an August Chicken, and he weighs already, (December 12th,) over seven pounds. He has not yet manifested the first symptom of *virility*, if such a term can be applied to feathered bipeds.

Of some smooth-legged Bantams, he says, "The Germantown Pigmies, after which we had so great a race, are doing amazingly well, and are much admired."

* * * * * *

* * * * * *

I have just seen the portrait of my Chittagong: it is a beautiful picture and a correct likeness,—with a slight exception; but this can be remedied by the engraver. His head and headgear are a trifle too large, *but not much*. His comb and wattles are really enormous,—as large as I ever saw them. My friend has grouped the three together, and it will be necessary to give them a whole page, lengthwise. As a work of art, and as excellent likenesses, they are well worthy of a place. Will the pictures,—the originals I mean,—be of any use to you after the book is published? If not, I would like exceedingly well to have those we send, returned. I would like to hand them down to posterity, that my grandchildren might know what fine Chickens their grandpappy raised. I think I *fore-hear* some one, a little older than the rest, bragging that granddad once helped a great wise Doctor write a book about Chickens and such-like, and then what a power of family pride there will be! A Hen couchant and a Rooster rampant will be the insignia of the House of Taggart. All hail to the illustrious successors of Columella and Aldrovandi!—the peers and compeers of

Rusk, Link, Leonard, and *Palmer!* * But a truce to jesting, and good-by.

Very truly your friend,

DAVID TAGGART.

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* Famous Cockers, in the neighbourhood of Philadelphia. The first is thought to keep the best game in the country. Mr. Taggart purchased a very fine pair of him, this winter, which he intends to breed pure with care.—ED.

CHAPTER XIV

THE CHITTAGONG FOWL.

In and around Philadelphia, we have a large Fowl, to which the above name has been incorrectly given, as, on further acquaintance, it has proved to be a mongrel, and, like most mongrels, comparatively worthless. Until within a short time, it went under various names, as Ostrich Fowl, the Turkey breed, the Big breed, the Booby, the Bucks County Fowl, and even the Malay. It is difficult to trace its history. Some forty years ago, several large Fowls were brought hither from different parts of China, the East Indies, and the adjacent isles; subsequently, and within a few years, others were added. These all, except in a few cases, have been mixed, and breed indiscriminately; and the result is the Fowl to which, according to the caprice of the people, the above names have been applied. It is of all colours, from black to white, frequently speckled, sometimes red and black, and again dun. When bred, it will generally produce its like in point of *size*, but rarely in point of *colour*, showing it, unquestionably, to be a mixture of several original breeds. They are not very good layers, though their Eggs are very large and rich. Their legs are sometimes lightly feathered, not always, and vary in colour from yellow to a dark or bluish hue. I once had a *Pullet* of this kind which weighed eleven and a quarter pounds; the

usual weight for full grown males, is from ten pounds and a half to twelve pounds; females, from eight to ten pounds. They are generally quite leggy, standing some twenty-six inches high, and the Hens twenty-two inches. A first cross with the Shanghae would make a *very large* and valuable bird for the table, not for breeding from.

Mr. Taggart, of Northumberland, Pa., is disposed to think favourably of some Chittagongs he received from me, with a pair of Shanghaes. They are all yet quite young. He says:

"Of all large breeds, it strikes me the Chittagongs are most prolific. My Brown Pullet began to lay on the 19th of October, when not much over five months old. In twenty-two days she laid eighteen Eggs, (or, I may say nineteen, for one was double,) and then began to sit. Her laying was after this fashion: 3, 3, 4, 3, 5. No doubt I could have kept her at it, by changing her nest from time to time. It is extraordinary that a Pullet of her age should lay *lay so fast at this time of year*. After incubating a week, she grew very sick, and I was forced to break her Eggs and take her off. When she began to lay she weighed six and three-quarter pounds, now only five pounds. But she is recovering.

"The Shanghae and the six-toed Chittagong Pullets are growing finely—the first draws five and three-quarters, the other six pounds. But the Stags seem to have paused, the Chittagong at eight and a quarter pounds, the Shanghae at six and three-quarter pounds—he has always remained thin. I impute their present slow progress to their *hard service*. Quite a number of my Hens are laying, or preparing to lay, and these two gentlemen have a monopoly of the business."

Vide Mr. Taggart's letters herein, for further remarks on this variety.

THE JAVA FOWL.

I KNOW not of any person in this country who can boast of having this Fowl in its purity. If the descriptions of it, as given by some, (Willoughby among the rest,) be true, I am quite certain I have never seen it. He describes it as carrying its tail like a Turkey. A lady, in the vicinity of Philadelphia, who has had some choice foreign Poultry for the last thirty years, has a variety which she calls Java, but I am unable to discover any thing peculiar about them. They are of almost all colours, some feather-legged and some smooth; comb and wattles as freely developed as in the Shanghae and Cochin China. Long Island, the head quarters of this variety, abounds in a stout black Fowl, single, serrated comb, and full wattles. I presume that, until we find a bird answering Willoughby's description, we must be content to call our large black Fowls, Javas. Those on Long Island might weigh, per pair, from 14 to 16 lbs. The slightest trace of a top-knot is not to be tolerated; their legs are black and smooth. They are quite broad across the rump, and have, on that account, sometimes, been called "Saddlebacks." Their practical qualities are good.

THE SHAKEBAG FOWL,

COMMONLY called the Duke of Leed's breed, is said by Mowbray to be extinct; if so, it will not be necessary to consume much of the reader's time in describing a Fowl which he may never see. As a mere matter of history, we may state that the Duke, being an enthusiastic Cock-fighter, was in the habit of bringing his Cocks into the Pit in a bag, against any that could be produced, and, when shaken out, from their supe-

rior strength and size, were found more than a match for any competitor, and were subsequently denominated Shakebags. They were supposed to be a cross of the Malay and English Game: some think that they arose merely from improving the size of the common Fowl, and not by any foreign cross. Mowbray says, "The only one I ever possessed was a red one, in 1784, weighing about 10 lbs., which was provided for me, at the price of one guinea, by Goff, the dealer, who then lived upon Holborn Hill, in London, and who, at the end of two years, received him back at half a guinea; having allowed me, in the interval, three shillings and six-pence each, for such thoroughbred Cock-Chickens as I choose to send him. At that time (1784) the real Duke of Leed's breed had become very scarce, which induced the dealers to put Shakebag Cocks to Malay Hens, by that means keeping up the original standard size, but entirely ruining the colour and delicate flavour of the flesh.

JERSEY-BLUE FOWL.

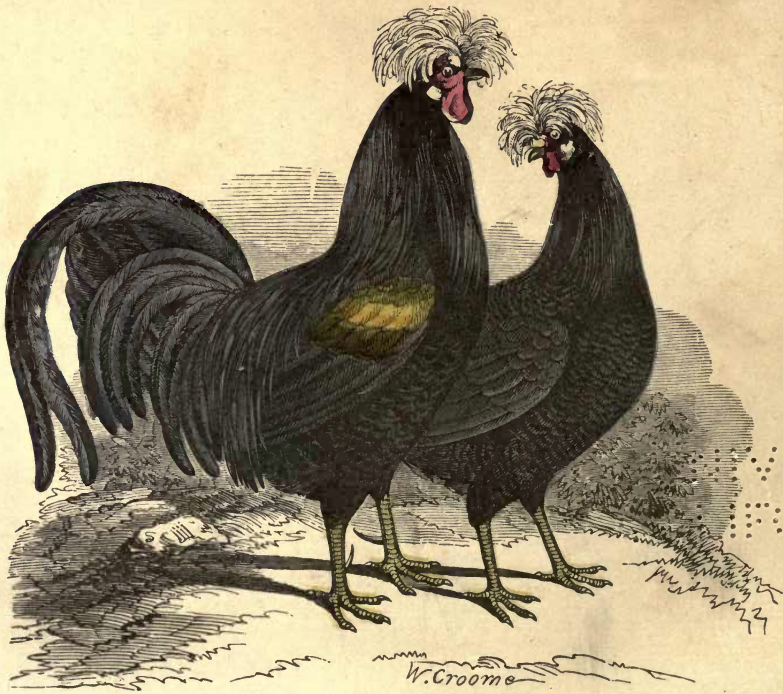
THE colour of this variety is light blue, sometimes approaching to dun; the tail and wings rather shorter than those of the common Fowl; its legs are of various colours, generally dark, sometimes lightly feathered. Of superior specimens, the Cocks weigh from 7 to 9 lbs., and the Hens from 6 to 8 lbs. They are evidently mongrels; and, though once a good deal thought of, yet, since the purer breeds, as the Shanghaes and Cochin Chinas, have been introduced, they begin to be neglected, as indeed all mongrels should be, so far as breeding from them is concerned.

CHAPTER XV.

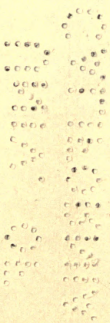
THE POLAND, OR POLISH FOWL.

This Fowl is said to be quite unknown in Poland, and that it takes its name from some resemblance having been fancied between its tufted crest and the square, spreading crown of the feathered caps worn by the Polish soldiers. The Hens I know to be among the very best layers, though their Eggs are not so rich and highly flavoured as some others. They are generally bad sitters, or, rather, are not disposed to sit until late in the season.

The best specimens are now procured from Holland; the country of the Bolton Grays, Spangled Hamburghs, etc., etc. The Cock weighs about 4 or 4¼ lbs., and the Hen about 3 or 3½ lbs. The crest of a well-bred Cock is parasol-shaped, hanging down over his beak and eyes, surrounded with a few black feathers, and fronted by a small spiked comb. The fleshy protuberance, out of which the crest grows, is usually called King David's Crown. The wattles are very largely developed; the legs are usually blue; the neck, body, and tail should be black, and the butt of the wing, brass-marked. The skin and flesh are white. Their form is plump and deep, and the legs not very long. Mowbray says, "The Polanders are kept as ornamental, but they are also one of the most useful varieties, particularly on account of the abundance of Eggs they lay, being least inclined to sit, of any other breed, whence they are sometimes called *everlasting layers;* and it is



POLAND FOWLS.



usual to set their Eggs under other Hens. They fatten as quickly as any other breed, and are in quality similar to the Dorking; their flesh perhaps more juicy, and of a richer flavour." There is an exception to almost every rule. I once had a choice Poland Hen that gave me more trouble in breaking up the sitting fever, and that, too, early in the season, than any Hen I had. In general, however, pure Polands are not inclined to sit until near or after midsummer; consequently, they lay more Eggs than those that become early broody.

The Eggs of this variety are of good size, and white; but, as previously stated, they are not so rich as some others; the yolks are of a pale straw-colour, and I have known the albuminous part often to be quite watery. There is also a strong tendency of the white of the crest to mingle with the black of the body, and *vice versa*. I once saw some Fowls, said to be pure, of the stock of Mr. Bement, of Albany, of a reddish hue all over, from the yellow or brass marking on the butt of the wing mingling with the general plumage. The result of my experience is, that it is very difficult to keep the white, red, and black in their appropriate places, in breeding pure, well-marked Polish Fowls; but, when all are right, I know no more beautiful sight of the kind on a gentleman's lawn—they are living, walking Japonicas.

Mr. Dixon, and his correspondents, will tell the rest of the story in relation to Polish Fowls. He says, "There is no evidence that any breed of Fowls with top-knots was known to the ancients; but we first meet with them in the middle ages. Aldrovandi, quoted by Willughby, 'in his Ornithology gives us many kinds, *or rather rarities*, of Hens. 1. A common Hen, but white *and copped*.' This is the Lark-crested Barn-door Fowl. But Aldrovandi also gives two large spirited figures, each occupying the whole of his folio page, which he

calls Padua Fowls, but in which we recognise what would now be called Polands."

This is his description:—

"There exist Cocks for the most part larger than our own, which the common people call Paduan, even as such Hens are larger than our own Hens. We exhibit the likeness of the male and female. The male was most beautiful to behold, highly decorated with five colours, namely, black, white, green, red, and ochre. For the whole body was black. The neck was covered with very white feathers. But the wings and the back consisted partly of black, and partly of green. The tail likewise was of the same colour, but the roots of the feathers were whitish.* Some of the quill feathers (?) ['*remigibus*'] were white above. Its head was adorned with a very handsome crest; but the roots of the crest were white. A red spot encircled the eyes. The comb was very small; the bill and feet yellowish. But in the whole Hen there was not the least white, except that white skin which is usual about the openings of the ears; but she was altogether black, shining with green. The feet were light yellow; the comb very small, and scarcely of a red-colour."

A difficulty about such varieties, recorded so long ago, is the doubt whether the Cock and Hen were really of the same breed.

The Paduan Fowl has been continually mentioned as something distinct and primitive, by those who have quoted Aldrovandi at second hand; but we will, for the present, discard the term, and sweep the birds into the class of Polands. Whether the Polish Fowls were really first brought to us from Poland, I cannot yet trace; but the fact is quite possible. Fowls brought alive from India to Europe by overland journey, would suffer

* An abundance of white down at the root of the tail-feathers is a great ornament in the Black Polish and Game Cocks, and a mark of breeding.

less than such as were sent by sea round the Cape of Good Hope. At the end of each day's journey they could be let loose immediately that the spot for the night-bivouac was fixed upon; they would soon learn to return at dusk to their travelling Hen-house, and would be well refreshed against the next day's fatigue. Nor, indeed, is there any reason why Fowls should not permanently accompany wandering and unsettled tribes of men, who usually have other live-stock constantly in their train, as well as their wives and children. Mr. J. H. Drummond Hay found that the tent-occupying Arabs of Western Barbary kept Fowls:—"Every family," he says, "has its brood of chickens, and these have their roosting quarters in a distant nook or compartment of the tent." In Russia, the finest teas are received overland from the East; nor is it improbable that a few Fowls may have been carried as far as the neighbouring country of Poland, after having accompanied some wealthy merchant, as live-stock to be eaten by the way in case of sickness, or short commons. But whether correct or not, it would be difficult now to alter their nomenclature. One of the Polish Fowls is supposed, by some writers, to be descended from the wild Cock of St. Jago. The assumed existence of such a bird is founded on an error: but if the Cocks of St. Jago are any thing akin to the goats which Captain Cook found there, "of the antelope kind, so extraordinarily lean that hardly any thing can equal them," the cross would be no great improvement. But I take it, that no existing wild *Gallus* has any more to do with the formation of our present breeds, than we have shown that the Pheasant has. Mowbray says, "Perhaps the genuine sort (of Polish) has always five claws;" and he proceeds to derive "our famous Dorking breed" *from* them, with the reservation, however, that such a speculation may be groundless, which it decidedly is. For the fifth toe vanishes from the Dorkings at a very early stage of crossing with any other breed.

The Black Polish Fowls are of a uniform black, both Cock and Hen, glossed with metallic green. The head is ornamented with a handsome crest of white feathers, springing from a fleshy protuberance, and fronted more or less deeply with black. The comb is merely two or three spikes, and the wattles are rather small. Both male and female are the same in colour, except that the Cock has frequently narrow stripes of white in the waving feathers of the tail; a sign, it is said, of true breeding. The Hens also have two or three feathers on each side of the tail, tinged in the tip with white. The Hens do not lay quite so early in the spring as some varieties, especially after a hard winter; but they are exceedingly good layers, continuing a long time without wanting to sit, and laying rather large, very white sub-ovate Eggs. They will, however, sit at length, and prove of very diverse dispositions; some being excellent sitters and nurses, others heedless and spiteful. The Chicks, when first hatched, are dull black, with white breasts, and white down on the front of the head. They do not always grow and get out of harm's way so quickly as some other sorts, but are not particularly tender. In rearing a brood of these Fowls, one may observe some of the Hens with crests round and symmetrical as a ball, and others in which the feathers turn all ways, and fall loosely over the eyes: and in the Cocks, also, some have the crest falling gracefully over the back of the head, and others have the feathers turning about and standing on end; these are to be rejected, the chief beauty of the sort depending on such little particulars. One Hen laid just a hundred Eggs, many of them on consecutive days, before wanting to incubate; after rearing a brood successfully, she laid twenty-five Eggs before moulting in autumn.

The Black-topped White Polish is now, it seems, lost to this country, if, indeed, there is any evidence of its having ever existed here. Buffon mentions them as if extant in France in his time. These and the Shackbags are probably re

coverable only by importation from Asia. I am given to understand, that an attempt will be made to reproduce them here by breeding. The experiment will be interesting either in its success or failure.

THE GOLDEN POLANDS are sometimes called Gold-spangled, their plumage approaching to that of the Gold-spangled Hamburghs; but many of the finest specimens have the feathers merely fringed with a darker colour, and the Cocks, much more frequently than the Hens, exhibit a spotted or spangled appearance. Many of them are disfigured by a muff or beard; but no such birds should be allowed the *entrée* of the Poultry-yard, but dispatched at once to the fatting-coop.

It is a question with the curious whether the muff at the throat is, or is not, an original appendage to these birds. The earliest figures with which I am acquainted (Aldrovandi's) increase the difficulty, by displaying a pair of Fowls, one with, and one without the muff. Albin (1736) figures a Cock "of a peculiar breed, which is brought from *Hamburgh* by our Merchants," with a short top-knot, a decided beard, and actual *whiskers*, "a tuft of black feathers, which covered his ear." The Irish fanciers decide, that, in the same clutch of Chickens, the produce of the same parents, those which have beards in addition to their top-knots are to be called Hamburghs; those with top-knots only, Polish. Others say, that the beard comes from a cross with the Russian Fowl, which, as near as we can ascertain, is a bearded Dorking. A distinct race, of which the muff is one permanent characteristic, is not at present known. It is a frightful appendage, and not easily got rid of, if once introduced to a Poultry-yard: which makes me suspect either that the original Polish were beardless, or that there were two ancient races.

The Golden Polands, when well-bred, are exceedingly handsome; the Cock having golden hackles, and gold and brown feathers on the back; breast and wings richly spotted with

ochre and dark brown; tail darker; large golden and brown crest, falling back over the neck; but little comb and wattles. The Hen is richly laced with dark brown or black on an ochre ground; dark-spotted crest; legs light-blue, very cleanly made, and displaying a small web between the toes, almost as proportionally large as that in some of the waders. They are good layers, and produce fair-sized Eggs. Many of them make excellent mothers, although you cannot always get them to sit early in the season. The Chicks are rather clumsy-looking little animals, of a dingy brown, with some dashes of ochre about the head, breast, and wings. They are sometimes a little apt to die in the first week of their existence, but afterwards get tolerably hardy, although liable to make a stand-still when about half-grown.

It has been observed as a peculiarity in the temper of this breed, that if you catch one of them, or if one is attacked by any animal, the rest, whether Cocks or Hens, will instantly attack the aggressor with fury, and endeavour to rescue their unfortunate companion.

The Silver Polands are similar to the preceding in shape and markings, except that white, black, and gray, are exchanged for ochre or yellow, and various shades of brown. They are even more delicate in their constitution, more liable to remain "fixed" at a certain point of their adolescence, and still more require and will repay extra care and accommodation. Their top-knots are not perhaps in general so large; but they retain the same neat bluish legs and slightly-webbed feet. It is curious that a bird which is quite incapable of swimming should have webs on its feet, while the Gallinule, which swims and dives well, has none. The Hens of the Silver Polands are much more ornamental than the Cocks; though even they are sure to attract notice. They may certainly be ranked among the choicest of Fowls, whether we consider their beauty or their rarity. They lay moderate-sized, French-white Eggs,

much pointed at one end, in tolerable abundance, and, when they sit, acquit themselves respectably.

The new-hatched Chicks are very pretty; gray, with black eyes, light lead-coloured legs, and a swelling of down on the crown of the head, indicative of the future top-knot, which is exactly the colour of a powdered wig, and indeed gives the Chick the appearance of wearing one. They are easily enough reared for the first six weeks or two months; the critical time with them being the interval between that age and their reaching their fifth or six month. At a very early age they acquire their peculiar distinctive features, and are then the most elegant little miniature Fowls it is possible to imagine. The distinction of sex is not very manifest till they are nearly full grown; the first observable indication being in the tail. That of the Pullet is carried uprightly, as it ought to be, but in the Cockerel it remains depressed, awaiting the growth of the sickle feathers. The top-knot in the Cockerels is more pendent backwards than in the Pullets. It is remarkable that the Golden Polish Cock brings as true Silver Chicks, and those stronger, with the Silver Polish Hen, as the Silver Polish Cock would.

The Silver Polands have all the habits of their Golden companions; the main difference being the silvery ground, instead of the golden. The Silver variety will sometimes even make its appearance if you breed merely the Golden sort, exactly as the Black Polish produce now and then some pure White Chicks that make very elegant birds. An attempt has been made to obtain the black top-knotted White Polish from these, by acting on the imagination of the parents. The experiment failed, though similar schemes have been said to succeed with animals; it proved, however, one thing—namely, that it will not do to breed from the White Polish as a separate breed. Being Albinos, the Chicks come very weakly, and few survive.

On the other hand, trust to chance for an occasional white one among the black, and you get a fine bird.

There is a singular variety of the Polish, which has the entire plumage of a uniform slaty-dun colour. Other curious combinations of colour are probably to be found here and there, in the hands of careful breeders. One has been lately raised in which the golden-plumage has been crowned by a large globe-shaped white crest of dense features; how long this will continue permanent, remains to be tested. There was also a breed, called after Lord Erdley, which obtained a prize at one of the Poultry-shows in the Zoological Gardens.

The Polish are chiefly suited for keeping in a small way, and in a clean and grassy place. They are certainly not so fit for the yard of the farmer, becoming blinded and miserable with dirt. It is a main point to procure them genuine, as the degenerate things one sees in towns are frequently palmed on the buyer instead of the handsome, deep-bodied, short-legged variety. I have seen a slight sub-variety, having the crest *entirely* white, but inferior in shape and beauty. Indeed there is no breed of Fowls more disfigured by mongrelism than this. The Polish will, without any cross-breeding, occasionally produce white stock that are very pretty, and equally good for laying, &c. It is singular, however, that if you attempt to make a separate breed of them, they become puny and weak. It is better for those who wish for them to depend upon chance: every brood almost of the black producing one White Chick, strong and lively as the rest.

The Polish Fowls are excellent for the table, the flesh being white, tender, and juicy; but they are quite unsuitable for being reared in any numbers, or for general purposes: they are so capricious in their growth, frequently remaining "stuck," as the country people call it, for a whole month, without getting bigger, and this when about a quarter or half grown, the time of their life when they are most liable to disease. As

aviary birds, they are unrivalled among Fowls. Their plumage often requires a close inspection to appreciate its elaborate beauty; and the confinement and petting seems less uncongenial to their health. We would recommend persons whose accommodation for Poultry is very limited, to select some pretty family of Polanders, and keep them on the aviary system; when it will be found that their plumage improves in beauty with almost every moult.

But a great merit of all the Polish Fowls is this: that for three or four years they go on growing and gaining in size, hardiness, and beauty, especially the male birds. This fact, which any amateur can verify for himself by observation, assuredly points out a very wide deviation in constitution from those Fowls which attain their full stature and perfect plumage in twelve or fifteen months. The similarity of colouring in the two sexes, almost a specific distinction of Polish, and, perhaps, Spanish Fowls, also separates them from those breeds, as the Game, in which the Cocks and Hens are remarkably dissimilar. An additional recommendation to the Polish is, that their edible qualities are as super-excellent compared with other Fowls, as their outward apparel is superior in elegance, —a point which is recorded here not from mere hearsay; although, to confirm it, Temminck quotes Sonnini's information that the Polish Fowls (les Coqs huppés) are highly esteemed in Egypt for the goodness of their flesh; and are so abundant in Upper Egypt as to be sold for 2½*d.* or 3*d.* each. At the Cape of Good Hope this breed is equally cultivated.

Polish Fowls are also currently reported as everlasting layers, which further fits them for keeping in small enclosures; but, as in the Hamburghs, individual exceptions are often met with, however truly the habit may be ascribed to the race. "I only know of the Golden-spangled, Silver-spangled, and Black Poland that are everlasting layers, though of the Black, I believe there are two varieties, one smaller than the other.

The small ones are of a purer black, with larger top-knots, and I think I have heard they are truer everlasting layers than the large variety. Some of the large ones have slight white tips to a few of their feathers. I am altogether unable to point out any difference between the Polanders that are everlasting layers, and those that are not; for I have seen several that apparently were pure bred, that were as much inclined to sit as any other Fowls."—*J. S. W.*

Both the Poland and the Lark-crested Fowls are, in Norfolk, trivially called "Copplecrowns."*

Before taking leave of the full-sized Fowls, it may be observed that the initiated can often distinguish the various breeds unseen, by their crow. A friend remarks, "there is an Italian proverb: 'as the old Cock crows, so crows the young;' and indeed the voice may be considered as a tolerably fair guide for ascertaining whether the different breeds of Domestic Fowl are genuine or not. Amongst individual Cocks of the same variety, there will, indeed, be frequently slight variations in the tone of crowing; but yet, a person having any thing of a correct ear, may easily trace the *family crow* throughout. Thus, the Game breeds that I have kept, have always rather a a shrill, but not inharmonious crow, with a very peculiar,

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* In the "Tournament of Tottenham, or, the Wooing, Winning, and Wedding of Tibbe, the Reeve's daughter there," an old burlesque ballad, the Reeve says:—

"Whoso berys hym best in the turnament,
Hym schal be granted the gre be the comon assent,
For to wynne my dozter wyth dughtynessé of dent,
And 'coppell' my brode-henne that was brozt out of Kent:
And my dunnyd kowe
For no spens wyl I spare,
For no cattell wyl I care,
He schall have my gray mare,
And my spottyd sowe."

abrupt termination. The Blue Duns have somewhat the same style of crowing, but with a more regular and gradual finale. Cocks of the Silver Hamburg variety are generally even more shrill than the two last mentioned, giving, however, a longer finishing note. The Polish are not, I think, remarkable for melody in crowing; they are harsh-toned, and frequently lack that agreeably sounding turn in the crow, that you hear in the Game and Hamburg, and others. The Spanish, also, though professing to come from a rich land in musical ability, are not highly gifted with vocal powers. Their crowing is loud, indeed, and not so very shrill, but squally and grating to the ear. Some few individuals are better and richer in tone, but those are the exceptions not the rule. The Malay's voice is hoarse, and not so loud as, from the size of the bird, might be expected; while that of the noble Cochin China is deep-toned, mellow, and prolonged, like the closing note of an accomplished singer. Bamtams are more varied in their crowing powers than any of the breeds above mentioned; but one I possessed some years since, was so particularly musical, that his crow sounded like two or three bars of an air whistled in a mellow key. It has, I believe, been universally remarked, that the Domestic Cock always claps the wings *before*, and the Pheasant *after* crowing. The Cock, however, as I have often noticed, will frequently give another clapping *after* the song is ended. These birds must sleep very lightly and watchfully, as, the instant an individual, roosting separately and at a distance, begins his clamour, the others answer, and the concert spreads from farm to farm, throughout the village. To hear this natural alarum-bell ringing far and wide, between ten and twelve o'clock on a December's night, is singular enough. The cause of these birds thus forestalling their morning note of gratulation, has not yet, I think, been satisfactorily explained.

"The growth of the spur in the gallinaceous order of birds

is often irregular and unaccountable. Among Fowls, especially, it is a very misleading guide to denote the age. You may see an old Hen, eight or twelve years of age, without the slightest semblance of a spur; and again, in a last year's Hen, you may observe them of some length; and even in a Pullet of the same season, (as in the case of one of the Game Pullets you sent me,) the spur is highly developed. The same remarks will apply, though in a less degree, to Cocks also. Many are the persons who have been thus wofully deceived when purchasing Pheasants for the table; as they afterwards find to their annoyance, when the bird is undergoing the process of mastication."—*H. H.*

CHAPTER XVI.

HAMBURGH FOWLS.

THE SPANGLED HAMBURGH FOWL.

This beautiful variety is distinguished from other members of the same family, by their large top-knots being coloured instead of white, and the black and conspicuous muffle or ruff on the throat and under the beak. There are two kinds, the golden and silver spangled; the ground of the feathers of the golden spangled being a rich yellow, approaching to an orange-red, with black spots or spangles. The silver spangled differs from the preceding, by the ground of the feathers being a silvery white. The comb, as in other highly-crested Fowls, is quite small: the wattles are also diminutive; legs generally blue; skin and flesh white; Eggs a moderate size, but abundant; Chickens easily reared. In and about New York, a few years since, this Fowl abounded—both the golden and silver varieties. They may weigh, say, three and a half pounds, for the female, and from four and a half to five and a half for the male. The Cock stands some twenty inches high, and the Hen about eighteen inches.

THE BOLTON GRAY, OR CREOLE FOWL.

THE Bolton Gray or Creole Fowl is sometimes called Dutch Every-day-layers, Pencilled Dutch Fowl, Chittaprats, &c. They were originally imported from Holland to Bolton, a town in Lancashire, England, whence they are named. The ground colour is pure white, minutely shot or touched with black, except on the neck, giving rise to the name Pencilled Fowl, and from the frequency of their being brought over to London, by Rotterdam steamers, they are called "Dutch Pencilled Fowl," or "Dutch Every-day-layers." A good Cock of this breed may weigh from four to four and a half pounds, and a Hen from three to three and a half pounds. I have found them good layers, but thought the Eggs to be watery and innutritious. I wrote to a friend, who knows the Fowl well, having kept the variety for several years, and his reply is,—"Of the richness of Creole Eggs, compared with those of less prolific breeds, I am scarcely able to speak. Though I have owned Creoles for a dozen years, I have never made any careful comparison. But, from analogy, I would infer that an Egg would prove rich in proportion as it was *small*, compared with the Hen that produced it, *cæteris paribus*. A Cow, nearly dry, generally gives much richer milk than one that yields abundantly.

"The superiority of a Creole Hen does not consist as much in *rapid* as in *continued* laying. She may not produce as many Eggs in a month, as some other kinds, but she will lay more months in the year than probably any other variety. I have had Creoles seven or eight years old, *that never became broody*, and which have laid, in that time, at least six hundred Eggs, in this fashion:—First year, one hundred and eighty or two hundred. Second, one hundred and fifty. Third, one hundred to one hundred and twenty. Fourth,

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seventy or eighty. Fifth, forty or fifty. Sixth, eighteen or twenty. Seventh, almost total barrenness. This statement shows the extreme folly of keeping Hens, after the third, or even the second year. For, besides the great falling off in Eggs, these are apt to prove infertile when laid by super-annuated Hens."

Mr. Dixon, in writing on the whole family of Hamburgh Fowls, to which the Bolton Grays and so-called Silver and Golden Pheasants belong, says:—First, of the Bolton Grays, "The Hen has a rose comb, pure white neck and breast, and the rest of the body most exquisitely pencilled with bluish slate-colour and white, legs light blue. The Cock has the back and neck greyish white; breast and wings slightly spotted, tail nearly black, fine double comb. These Fowls are the most perfect patterns of neatness in make, and are under the average size. They are excellent layers, and pretty fair mothers; Eggs rather small, French-white, and slightly tapering at one end. The Chicks are white, except a dark streak on the head, and down the nape of the neck—a curious fact, as, when adult, this is the only part without dark markings. When their little barred wings begin to appear, they are very pretty; but are certainly rather difficult to rear, many of those I have had dying off when a quarter grown, from some cause, the only symptom being the skin's turning black.

"There is also a spurious breed of this variety sold in towns, that are larger, but by no means so neatly made; the necks mixed with specks, and the slate and white markings confused on the body. They are beautifully distinct in the true sort. We have found the Creoles very good eating."—*H. H.*

In the neighbourhood of Keighley, in Yorkshire, on the borders of Lancashire, the Bolton Grays are called "Chittiprats," or "Cheteprats." Prizes are given for the best by the Keighley Agricultural Society, and the opinion of them current there, is, that they are very handsome, very hardy, and excellent

layers. In other parts of the kingdom, they are known by the trivial name of "Narrowers."

Prince Albert's breed, so named by Mr. Smith, formerly of the Hippodrome, near London, are Bolton Grays, that are said to be crossed with a dash of Game blood, to improve their form. They are not to be distinguished from the Silver Spangled Hamburghs.

We take the liberty of extracting another account of them, from the Agricultural Gazette, for Oct. 14, 1848:—

"The Silver (Hamburgh) Fowls are worthy of notice, both on account of their beauty and productiveness; they are small-bodied, have short blue legs, a very pretty head, with a full comb, and a remarkably short bill, rounded, and shaped somewhat like a sparrow's; their colour white, with very regular black dots or moons on their wings and tail. They lay well; mine commenced early in February, and are laying now, (Oct. 3;) they do not show any inclination to sit; but in a hatch, their Eggs are very productive. I have had fourteen Chicks out of fifteen Eggs. It is necessary to keep a Game Hen or two, to perpetuate the breed, (by hatching the Eggs, which they will not often do for themselves.) I find rice, at 12*s.* to 14*s.* per cwt., soaked all night in water, and then rolled in Indian meal, a very economical and fattening food, occasionally mixed with a little barley. My Hens would have commenced laying earlier in the season, if their roosting-place had been warmer."—*W. X.*

Aldrovandi's account of his Turkish Fowls, is as follows:—

"*On the Turkish Cock, and two Turkish Hens.* The Cock, whose likeness we now give, is called the Turkish Cock. His whole body was, in a manner, inclined to white. Still, the wing feathers were partly black, the belly also was black;*

* Had I been aware that your mind was not quite made up as to the identity of the Bolton Grays with the Silver Hamburghs, I would

the tail consisted of feathers that were partly green, partly black, some also half-green, some half-black. His whole body was exquisitely adorned with lines, that were sometimes golden, and sometimes silver, and it is wonderful what a beautiful effect this produced. His legs and feet were tinged with blue. The Hen, which, in like manner, was called Turkish, was all white, sprinkled over with black spots; the feet tinged with blue: the wattles were short, when compared with those of the male. The next Hen would seem the same, except that her neck was yellowish, and she had a sharp point on the top of her head, her feet altogether blue, and an immaculate tail.

"I have observed another Hen of this kind, whose feet were entirely blue, spotted in the same manner as the foregoing, with black and white; but behind its fleshy crest, it had another of white feathers, like a Lark, and that part of the neck and shoulders, which in the other is black, in this changing from ash-colour to dirty yellow."

It is a pity the description is not more precise. It is not clear whether the gold and silver lines are intended to be in the same or different birds. The reader may question the correctness of my translation; but Aldrovandi's large wood-cuts remove all doubt as to the variety intended. The figures given are evidently the Hamburghs, the Hens, one Golden and one Silver. The very peculiar form of the comb, so recognisable at the present time, is clearly marked in these old wood-cuts. The fleshy rose comb of the Hamburghs terminating in a sharp point behind, like the corner of a cocked hat turning upwards, and which is seen in no other variety of Fowl, is well described by "*apicem in vertice gerit.*" The smaller, and occasionally more semicircular comb of the Silver Hamburgh Hens, is well delineated in the Turkish Hen.

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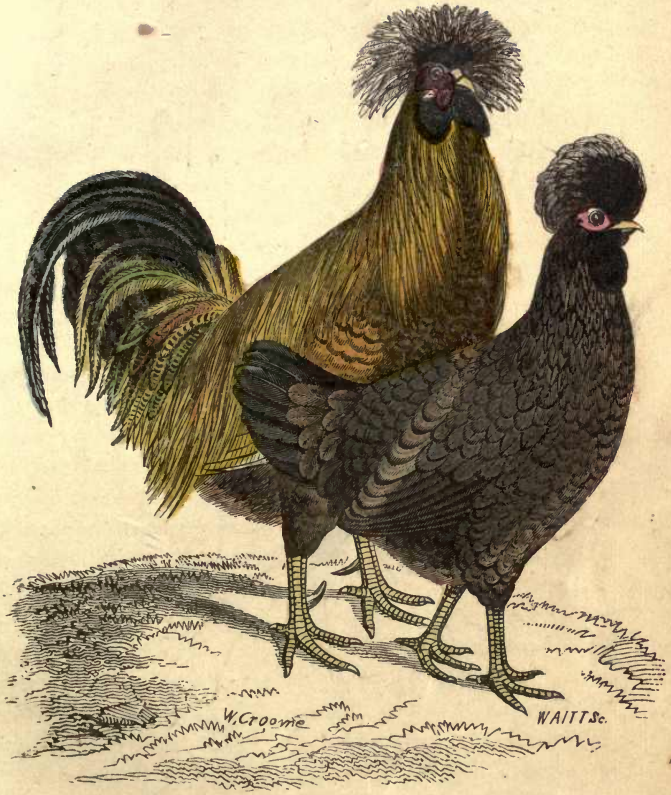
have written to Mr. M. to look out for a white-breasted Cock, but I begged him to send you a black-breasted one, if possible.—*J. S. W.*

Bolton Bay is another provincial term for the Golden Hamburgh, as Bolton Gray is for the Silver. In order clearly to fix the momenclature, by the comparison of individual specimens of different localities, I purchased in Hungerford market, some birds that had been imported from Holland, another specimen of Herring in the New Road, and lately have been kindly supplied with a pair of Bays, and also of Grays, from Bolton, in Lancashire, and also with a Creole Hen from Wiltshire. The result of the comparison, and of the unanimous opinion of the London Poulterers, is, that the varieties of Hamburgh, two Golden and two Silver, include all these synonyms. The Bolton Bay from Lancashire, differed most in her markings from the normal type, which we will suppose represented by Aldrovandi's Turkish Hen; but all the main points were correct, and for this difference I had been prepared. "When you receive your Boltons, be sure that you do not draw any conclusions from their *colour alone*, for that is extremely varied. Many are quite as handsomely marked as the Spangled Poland or the Pheasant Malay." The Bay Hen I received, was marked very like a Golden Poland, (the crest, of course, being quite absent,) but that the ground of the plumage was of much richer and browner hue. Those persons, therefore, who wish to procure Hamburgh Fowls from Lancashire, should be precise in their instructions, according to the description shortly to be given. The Bolton Fowls average in that town 3s. each, which is cheap for those who wish to obtain a stock of any of these very distinct varieties. All the birds that I received were very good specimens. The male Golden Hamburgh is a particularly beautiful creature; nothing but a full-sized coloured drawing can give an adequate idea of the extremely rich colouring and brilliant lustre of his plumage. It has been mentioned in the previous note, that the males of the Bolton Grays differ somewhat in the quantity of black, or dark gray which they wear, as also do those of the Silver Spangled. The Hens,



HAMBURG FOWLS.

too, vary slightly, but the difference is hardly more than would be seen amongst a brood of Chickens reared from the same pair of Fowls. The Creole from the south of England was a very well-bred specimen, having the peculiar comb, pointed behind, described and figured by Aldrovandi.

A Golden Spangled Hamburgh Cock, from Lancashire, of the sub-variety, there called "Moss Fowl," has a large very double comb, pointed behind upwards, flat on the top, but covered with small upright points; the wattles are large, and there is a small white ear-patch. The bill is short and lead-coloured; feet and legs also lead-coloured. Irides, orange-brown. The hackle is composed of a mixture of brown, black, yellow, and green; back the same, only darker. Tail, black, glossed with green, and having gray down at the base of the feathers. Quills of the wings, chesnut; wing coverts, metallic black; breast, and under part of the body, black.

The Hamburghs are commonly set down as everlasting layers. But no strictly universal rule, that will apply without fail to every case, can be laid down for Fowls, any more than for men. Here, however, is decided evidence:—"I have sufficient experience of the Bolton Fowls myself, to enable me to say that they are everlasting layers, when pure bred. My father had some very handsome Fowls, a cross between them and a large Poland Hen, that was slightly inclined to sit. I can recommend this cross to the notice of those who wish a larger breed than the Bolton. By retaining those with the largest top-knots, a variety with large top-knots could soon be obtained. (Yes, but could it be *re*tained?) Some of the Bolton Gray Cocks have black tails and breasts, and others have the breasts mottled black and white: when these also have cream-coloured hackles, I think them very handsome. As to the occasional variation in the comb, I incline to the opinion that Hens more frequently come single-combed than Cocks, in breeds like the Hamburgh and the Malay."—*J. S. W.*

The Hamburgh Fowls are, beyond all other breeds, especial favourites in the Midland and Northern Counties; they are zealously cultivated there in all their sub-varieties; and a visit to the great Birmingham show, having afforded a good opportunity of comparing their markings and nomenclature, a sort of family tree of the breed is given for the guidance of distant Fanciers. We comprise the whole race under the denomination of

HAMBURGHS.

PENCILLED FOWLS, WITH LIGHT HACKLE, *that is,*			SPANGLED FOWLS, WITH DARKER HACKLE, *that is,*		
Either pure White hackle,	} or {	Clear unmixed Ochrey Yellow.	Either White hackle, striped in the centre with Black,	} or {	Yellow hackle, striped in the centrewith Black, Brown, or Green.
Chittaprat.		Bolton Bays.	Silver Spangled.		Gold Spangled.
Bolton Grays.		Golden Hamburgh.	" Pheasant.		" Pheasant.
Pencilled Dutch.			" Moonies.		" Moonies.
Silver Hamburgh.			" Moss.		Red Caps.
Creole, or Coral.			N.B. The *Adult* Cocks have in some families pure white hackle.		Copper Moss.

The terms "Silver and Gold Pheasant" are admitted into this list, simply to point out what they are *not:* the sooner they are discarded, the better. Mr. James Bissell, of Bradford Street, Birmingham, an enthusiastic and able amateur, thus gives his opinion :—

"I like very much your forming the Moonies, Moss Fowl, Chittaprats, and Bolton Bays, into one family of Hamburghs, and think you will, with a careful specification of the sub-varieties, for ever set this point in dispute at rest. I can see no objection (except old associations) why the term 'Pheasant' should not at once be abandoned in both the Silver and Golden varieties; it has doubtless given rise to much that is

equivocal and often false. [We have had Fowls sent us from long distances to convince us of the amalgamation of Phasianic with Gallic blood, when, lo! the specimens, on jumping out of their hamper, were very handsome "Moss Fowls."] But the Fowl known in this neighbourhood and in the Northern Counties under that term, of both colours, Silver and Golden, I believe to be as permanent as any variety we have, and their qualifications equal, if not superior to any Fowl I have ever met with; therefore I am anxious that they should be as accurately described as the Bolton Bays and Bolton Grays, for I can assure you that in the Midland Counties, and northwards, they have been, and still are, more extensively kept and more highly prized than all the other varieties of fancy Fowl put together; and almost universally has there been the inquiry why they have not found a place in the classification of Domestic Poultry by the various writers upon the subject.

"You appear to have thought that the name of *Moonies* was attached to the *Silver non*-Pheasants only, and that of *Moss* to the *Golden non*-Pheasants only, whereas both these names are applied to either variety; as, for example, the same birds are called Silver Moss and Silver Moonies, and if the colour be golden, they are called Copper Moss and Golden Moonies—the terms Moss and Moonies being synonymous, and as applicable to the Silver as the Golden-spangled variety. There can be but one opinion as to dividing them into the two distinct varieties of colour, viz., Golden Hamburghs and Silver Hamburghs, and we shall find the characteristics of the Hamburgh breeds, whereby we distinguish them from all other varieties, as uniform and true of the one colour as the other, and will always be distinct and apparent in the sub-varieties.

"All Hamburghs must possess a very neat, florid rose or double comb, not too large and bulky, which terminates in a fine upward-tending point at the back of the head, which

gives an exquisite finish to their appearance, pure white deaf-ears, or ear-lobes, and light slaty-coloured blue legs. Without the whole of the above characteristics, I should deem them impure, and not worth breeding from; and I consider these three qualities indispensable in the genuine Humburgh Fowl. I think we should avoid splitting them into too many sub-varieties, and beg to submit this simple mode of doing so under each variety of colour. Two sub-varieties of this Fowl will be clearly identified under the definitions of *Pencilled* and *Spangled* Hamburghs, and will embrace all the specimens I have yet seen or heard of; thus, in the Chittaprats and Bolton Bays we have the Pencilled Hamburghs, in the Moss and Moonies we have the Spangled Hamburghs. The marking and *characteristics of each sort* I will now describe.

"*Silver Pencilled Hamburghs* are about the size of ordinary Game Fowl, and, when quite pure, are (with the other varieties of Hamburgh Fowl) the most prolific layers we have. Their ground colour is pure white; the Cock has very little black upon him at all; the whole of the neck and saddle hackles, breast, and back purely white, and not (as in some specimens that have been shown as genuine birds) marked or pencilled upon the breast. This defect will always produce imperfect birds. The only parts that should have any black upon them are the wings and tail; the former should be barred across with black, and the latter should be black, with the feathers edged with white, gradually blended into the black. The Hen should have a pure white neck; and spots of black upon the hackles very much detract from the purity and beauty of the Fowl, and should therefore be strictly guarded against and rejected. The whole of the body, wings, and tail should be delicately but distinctly pencilled with clear black upon a clear white ground; and there are in general about five such distinct pencillings or bars across each feather upon the body, the extremes being marked the most distinctly. The

flight-feathers of the wings, and the tail-feathers should be barred all the way up them.

"*Golden Pencilled Hamburghs* are in all respects, except the ground colour, the same as the Silver Pencilled Hamburgh. It is a qualification that we should be very tenacious about, that the Pencilled Hamburgh Cock, either Golden or Silver, should not have any marking of black upon him, except upon his wings; for if he has, we shall be disappointed in his progeny, as he will evidently produce spurious birds.

"*Silver Spangled Hamburghs.*—These, in their general form and carriage, very closely resemble the Silver Pencilled, of which they are a sub-variety, their size being in general a little larger. The ground colour of the Cock is clear white, beautifully spangled with one spot or spangle of clear black upon each feather, which is more distinct and beautiful upon the breast than on any other part of him. The hackles of the neck and saddle are striped down the centre with black, and clearly marginated with white, the tail-feathers mottled with black and white, the black preponderating; the comb double, and pointing upwards at the back of the head, but not too large and ponderous; ear-lobes quite white, and the legs of a quiet light-blue colour.

"The Hen of this beautiful variety is one of the most splendid and attractive-looking birds of her species, being regularly spotted or spangled with one spot or spangle only of clear black upon each clear white feather, all over her body, from her head to the end or tip of her tail; and here I would observe, that the distinctive marks of difference between the Silver Pencilled Hamburgh Hens are these (they also apply to the Golden variety): the hackles of the Silver Pencilled Hamburghs are purely white, while the hackles of the Silver Spangled Hamburghs are regularly and distinctly marked with black; the other distinction is, that the Pencilled Hamburghs have five or six bars or pencillings across each feather of the

body, while the Spangled Hamburghs have only one distinct spot or spangle upon each of their feathers.

"Some of the purest and best bred of the Spangled variety produce Cocks which, when adult, have purely white hackles on the neck and saddle, but which, while Chickens in their first feather, have all the feathers of the neck and saddle slightly spangled with black, but their adult hackles come pure white. [We have known Chickens of this breed pass through changes of colour much resembling those of young Guinea Fowl.]

"*The Golden Spangled Hamburghs* differ in nothing except the ground colour of the body from the Silver Spangled. While it is expedient to abandon their provincial names, I cannot too strongly urge the necessity of attaching a proper importance to this variety of Domestic Poultry. They are beautiful looking Fowls, excellent layers, and although not so large, are as good a table Fowl, in quality and juiciness of flesh, as the Dorking, and come quite as early to maturity."

The Red Caps in our list are a family of the breed, with their combs somewhat more developed than would be considered as a model in Mr. Bissell's valuable communication. The Silver Pencilled may fairly be called a tender breed; but they will well repay a little extra care and attention, which indeed they may be said absolutely to require. Like the Bantams, they will occasionally produce single-combed Chicks; such are considered as aberrant, ill-bred, and to be rejected. Aldrovandi has figured a single-combed Hen as one of his Turkish Fowls.

CHAPTER XVII.

THE RUMPLESS FOWL, OR RUMKIN.

BLAINE, in his Encyclopædia of Rural Sports, (London, 1840,) says, "Of the feathered tribes of Ceylon, the most remarkable is the *tailless Cock*, (*Gallus ecaudatus*, Temm. fig. 25,) at present, we believe, only known in its wild state in the forests," &c. It may appear too skeptical in us to question whether it be now to be found wild in the forests of Ceylon,*

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* It is hardly possible to cavil at Temminck's evidence of its existence there. In reply to Buffon's fairy tale that Cocks, when transported to Virginia, lose that portion of their person on which the tail grows—a romance that seems to have imposed on the sober Doctor Latham—he says, "We can positively state that Buffon's opinion has not been confirmed; this Rumpless Cock was not originated in the New World, since the primitive species inhabits the Island of Ceylon; the Hen makes her nest on the ground; it is rudely constructed with fine grass, and resembles the nest of Partridges. The disposition of this bird is wild; the Cock frequently utters his crow, which, though less sonorous than that of our Domestic Cocks, has still the same cadence. The Cingalese designate this species by the name of Wallikikili, which means, Cock of the Woods. The distinctive characters of this species consist in the want of the last vertebra of the back, on which grows the carnosity that we term 'rump:' the absence of this vertebra is the natural cause that Cocks and Hens of this species are without the caudal feathers, as well as all the coverts, which in other birds are planted on the rump: this species

but it certainly has been extant in Europe for the last two or three hundred years. In the spring of 1848, a pair of very good specimens, with brown and white plumage, were exhibited at the Surrey Zoological Gardens, and labelled as "from Persia." Twenty or thirty years ago, when weavers and other artificers took more delight in tulip-beds, stages of auriculas, and Fancy Fowls and Pigeons, than in the Physical *v.* Moral Force Question, I have frequently seen gray-plumaged Rumkins, as well as Frizzled Fowls and other curiosities, walking about the streets, and "plains," and churchyards of Norwich. Those sources of amusement are now much neglected. But if the Rumkin be really a remnant of the original Fauna of Ceylon, it will be a pity if it be suffered to become extinct, although it be one of Blumenbach's defective monsters, *(mon-*

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is also distinguished from the other Cocks that we have described, by having his comb round, and without indentations." [He then minutely describes the plumage.] "I am unacquainted with the colours of the primitive female of this rare species, the Governor of Ceylon to whom I am indebted for information respecting this wild Cock, having sent me only a very old male, and a second individual, male also, at the stage when the comb and wattles begin to show themselves: an adult male is deposited in the cabinet of Mr. Raye de Breukelerwaert, at Amsterdam. These three individuals have the same distinctive characters, and the colour of their plumage absolutely correspond. The different domestic races of this species are distinguished by different coloured plumage; most of the Cocks have indented combs like those of our village Cocks; others have also the double comb. I have not yet met with one having a smooth comb, and without indentations; this last race, if it exist, would be that which retains most of the source, or first type. It is scarcely possible to furnish particulars of the origin of the domesticity of the Rumpless Cocks; the date of it, nevertheless, ought to be more recent than that of the other species which have produced the village Cocks; but inquiries on this subject cannot be established by proofs: they lose themselves in the night of time."

stra per defectum.) It is curious that another island under the British rule should furnish a quadruped similarly defective. Manx Cats are well known for the peculiarity of having no tail. They are still to be met with now and then; but the native race, or species of Pigs, which were wild in the mountains a hundred years ago, appear now to be quite exterminated from the Isle of Man. Insular tribes of animals have but little chance of suvivorship, as human population increases. In New Zealand, the wingless bird—another defective monster—appears to be now a fast-vanishing apparition from the face of the earth.

I have found no mention of the Rumpless Fowl in classical authors, but Aldrovandi was aware of its existence:—

"The Cock which they call the Persian, and which we have here figured, differs from our own sorts mainly in having no tail; in other respects, it is very like them. The Cock, however, has a sort of tail. It was all black, sprinkled with yellow lines: the first quill-feathers were white, the rest black; the feet ashy: the Hen was like our own in respect to shape and carriage; of an extremely different colour to the male, whence I attach little weight to diversity of colour, in these as in them. She was all over of a ferrugineous colour, except the three quill-feathers, which were black. Her comb, if you compare it with the comb of the male, was much smaller."

Aldrovandi's Rumpless Cock is represented with a large double comb, that is produced backwards, "*veluti caudam*," like a tail. I am without information as to their laying and sitting qualities. They are not small, being at least of the average size of Fowls.

"This species," says Temminck, "has given rise to many exaggerated tales. Before the domestic (race of the Rumpless Fowl) was well known, and dispersed through the different countries of Europe, the vulgar conceived ridiculous ideas, brought forth by superstition, on the subject of these birds.

"The 'Philosophical Transactions of the year 1693,' inform us that the Cocks of Virginia have no rumps; the inhabitants of this colony affirm that when Cocks are transported there they soon lose their rump; but this opinion is false, and has not been confirmed by modern travellers. Buffon, who seems to put faith in this improbable story, appears to conclude from it, that this species *originated* in Virginia; 'the more so,' says this naturalist, 'as the ancients were unacquainted with them, and naturalists did not begin to mention them till after the discovery of America.'"

Such are the marvellous effects of climate! Such are the foundations for doctrines which common sense cannot help believing dangerous in tendency, as well as false in principle! That such nonsense should influence the opinion of learned philosophers!—nonsense deserving only to be answered by other nonsense. If this wasting away of the indescribable part of the bodily frame be general in Virginia; if the inhabitants of that State really are subject to the loss—shall we dare say it?—of their rumps,—what a profitable speculation it would be to send out to them a few ship-loads of bustles, to try if they also will disappear by the influence of the climate!

THE SILKY AND THE NEGRO FOWLS.

ANOMALIES have been called "finger-posts, that point the way to unsuspected truths." This strange genus—for their claims to that title deserve to be investigated—ought to excite the curiosity of naturalists, though they have not much merited the favour of Poultry-keepers. Even if it be found that they produce prolific offspring when cooped with our common Poultry, that circumstance cannot be allowed to weigh for much in our present most imperfect knowledge of the family.

A great deal of confusion and uncertainty is current respecting the Silky and the Negro Fowls; and it cannot be expected that a country clergyman, who has but limited means of investigation at command, should be able, in a first endeavour, to throw much light on a most intricate and difficult subject, or to afford much final information on a class of creatures which have a more appropriate place in the museum than in the Poultry-yard. But they may safely be pronounced to be worthless, as stock: they are kept in existence in this country by importation from India, rather than by breeding. They may be had in London for about 10s. each; for less, perhaps, occasionally; and a collection of them, and a comparison of their differences, is desirable for scientific purposes. It may be presumed that in India several kinds are to be found, with which we are totally unacquainted. We have, however, quite enough to stimulate inquiry. There are, first, a Silky Fowl, with white plumage and skin, red comb, and bones coloured the same as in other Fowls; called, sometimes, the Nankin Silky Fowl. Secondly, another Silky Fowl with white plumage, but with dark skin and comb, and dark bone, called also the Black-boned Fowl. Such as these are doubtless those in the possession of the Queen. "I saw a lot of ugly, undersized white Fowls, with black combs and indescribable plumage, that had been sent to her Majesty from the East, which I suppose are the breed to which you refer. See the article 'Pheasant,' in the 'Penny Cyclopædia.' My brother tells me that he saw some very small White Silky Fowls which had been brought from Calcutta. If I remember aright, her Majesty's were as small as any Bantams."—*J. S. W.* Thirdly, there is another kind of Silky Fowls, with plumage almost black, with black comb and skin, and with bones that are black, or of a dark colour: and, fourthly, I am led to believe that there exists, what would be the true Negro Fowl, a bird with

black comb, skin and bones, and with plumage which is black, but not silky.

Instances of creatures having bones *naturally* discoloured, are, I think, rare. The only other one I can call to mind, is that of the Gar-fish, which is not unfrequent in the London markets, a most curious piece of organization, with a long beak like a Snipe, a long body like an Eel, but flattened like a riband, and grass-green bones. "The Wool-bearing Hen I take to be altogether fabulous, and its figure in *Aldrov.* lib xiv. cap. 14, taken out of a certain map, fictitious. Perchance it was no other than the frizzled or *Friesland* Hen, which *Odoricus de Foro Julii* and *Sir John Mandevil* call the Wool-bearing Hen. The birds which *M. Paulus Venetus* makes mention of in these words, '*In the city* Quelinfù, *in the kingdom of* Mangi, *are found Hens, which, instead of feathers have hairs like Cats, of a black colour, and lay very good Eggs,*' seem to be *Cassowaries.*"—*Willughby*, p. 156. A daring piece of skepticism for those times! However, the Frizzled and the Silky Fowls are quite distinct. Aldrovandi's own words are—"The likeness of this Wool-bearing Hen is taken out of a certain cosmographic map. There is a very great city, towards the East, in which the largest Cocks are produced. The Hens are white as snow, and, according to the Odoricus of Forum Julii, (three different towns rejoice in that name,) are covered, not with feathers, but with wool, like sheep. Also Marco Polo, the Venetian, writes, that in the city Quelinfu, in the kingdom Mangi by name, Hens are found that, in the place of feathers have hairs like cats, are of a black colour, and lay most excellent Eggs." Aldrovandi's figure is black, with large wattles, and elaborately jagged comb. The bird is covered with curly locks. But an inspection of these old wood-cuts, especially in botanical works, suggests the idea, that many of them were merely symbolical, intended rather to give

the hieroglyphic of the thing meant, than an actual verisimilar representation of it.

Temminck states positively that the Negro Fowl exists in a wild state in India; and that both it and the Silky Fowls differ anatomically from the ordinary Domestic Fowls. Buffon wonders what it can be which the Negro Fowls *find to eat* in their native home, so to change the colour, not merely of their comb and skin, but of their periosteum also.

Analogous to the Silky Fowl is the Lace Pigeon, so called on account of the peculiarity of its feathers, the fibres or web of which appear disunited from each other throughout their whole plumage.

THE FRIZZLED, OR FRIESLAND FOWL.

It is difficult to say whether this be an aboriginal variety, or merely a peculiar instance of the morphology of feathers; the circumstance that there are also Frizzled Bantams would seem to indicate the latter case to be the fact. School-boys used to account for the up-curled feathers of the Frizzled Fowl, by supposing that they had *come the wrong way out of the shell.* They are to be met with of various colours, but are disliked and shunned, and crossly treated by other Poultry. Old-fashioned people sometimes call them French Hens. The reversion of the feathers, rendering them of little use as clothing to the birds, makes this variety to be peculiarly susceptible of cold and wet. They have thus the demerit of being tender as well as ugly. In good specimens, every feather looks as if it had been curled the wrong way with a pair of hot curling-irons. The stock is retained in existence in this country more by importation than by rearing. The small Frizzled Bantams at the Zoological Gardens, Regent's Park, are found to be excellent sitters and nurses. Aldrovandi has an unmistakeable

figure of the Frizzled Cock, and gives the following account of it:—

"Pompilius Tagliaferrus, of Parma, not the lowest among distinguished physicians, wrote to me respecting this Cock, in these words: 'I send thee the effigy of a monstrous Cock, although the painter has not satisfied me in its delineation. But I wish you to know that two things particularly worthy of admiration are to be found in this Cock, which are scarcely ever seen in our own Cocks and Hens. The first and principal is, that the feathers of the wings are situated in a contrary manner to what they are in others, for the flat part of them, which, by the prescript of nature, in others bends inwards, in this is seen outwards, so that the whole wing appears entirely reversed. I think another thing worthy of notice, namely, that the small feathers of the neck are erected towards the head, like curls, whither also the whole tail appears to be bent.' So far he. But what he records of this Cock, neither its portrait sent to me nor our figure sufficiently express; which his words show to have happened through the unskilfulness of the painter." Aldrovandi seems to doubt the fact. His bird is drawn with a large, deep-cleft comb.

Temminck makes a species of this bird. He says, it is a native of Asia, and is found in a domestic state throughout Java, Sumatra, and all the Philippine Islands, where it succeeds well; but he is uncertain in what country it is still found wild.

It is curious that there should be a Frizzled Pigeon, called by Fanciers the Frill-back.

THE CUCKOO FOWL.

We here give, by the name by which it is usually designated in the Norfolk farm-yards, a variety which there is good reason to believe to be something old and distinct, though they are generally looked upon as mere Barn-door Fowls; *i. e.* the mere accidental result of promiscuous crossing. But there are several forms among the Barn-door Fowls, so called, that are seen to be repeated generation after generation, the counterparts of which are to be met with scattered here and there over the country. So constant a repetition of corresponding features would seem to declare, that there are several unnoticed and undistinguished varieties of Fowl, which deserve to be regarded and treated as we do other distinct sorts. The objection to the adoption of this view and mode of practice is, that it would inconveniently multiply the number of species, and give additional trouble to naturalists and poultry fanciers. But the multiplicity of Nature's works always has been infinite, in reference to man's power of understanding them. The only wonder, if we reflect, is, that he has had the courage to grapple with them at all. At any rate, the investigation of a few families of Cocks and Hens, is a less laborious work than the arrangement of a "Systema Naturæ," or the writing of a "Kosmos." The subject is certainly deserving of consideration, and may be the means of affording important service to natural history. Dr. Bechstein seems to have been not far from suspecting that several distinct varieties might be detected among the ordinary Fowls of the farm-yard. It might answer the purpose of the dealer to rear a pure stock of some of the handsomest and most useful of these, and send them forth with appropriate names, determined by competent persons, fixing the appellation of the variety.

quite approve of their being called Blue Bantams, as, although the breed is certainly small, it is still respectable in size, and the Eggs are very fair in that respect.

"The Hens are good layers, wanting to sit after laying a moderate number of Eggs, and proving attentive and careful rearers of their own Chickens, but rather savage to those of other Hens. The Eggs are small and short, tapering slightly at one end, and perfectly white. The Chicks, on just coming from the Egg, sometimes have a ridiculous resemblance to the gray and yellow catkin of the willow, being of a soft bluish gray, mixed with a little yellow here and there.

"There is one peculiarity in this breed, which is, that if the variety is kept perfectly unmixed with any other sort, you will seldom obtain more than half the number of the proper Blue Duns, the rest being either black or white. (This would make us strongly suspect that, if their history were known, they are themselves but a cross between two distinct varieties or species of Fowls, and that they must themselves eventually disappear, by assimilation to the type of one or other progenitor.) The white Chickens, however, are afterwards sprinkled with dun feathers. Perhaps the original sort may have been either black or white, as we know animals will, after many cross-breedings, 'cry back,' as it is called in some counties, to the origin whence they arose.

"The Blue Duns are nearly equal to game of any sort for eating. The hackles of the Cock are always in great request for making artificial flies for fishing."—*H. H.*

A Cockerel of this breed had the comb large, single, deeply serrated; bill, dark horn-colour, white at the points of both mandibles; ear-lobe, whitish; wattles, large and pendent; iris, orange-brown; neck hackle, yellowish gray; back hackle, the same, intermixed with black; legs, light lead-colour; live weight, 3 lb. 11 oz.; general tint, bluish dun; claws, grayish white.

The theory that the colour of the Blue Dun results from a combination of white and black (*i. e. very* dark purple or slate-colour) in the progenitors, as betrayed by the habitual "crying back" of the breed, is confirmed by the fact of the speckled black and white or gray and white Spanish producing whole-coloured slaty-gray birds, though of a darker hue than the Blue Duns, in which the permanency of the tint appears to be equally uncertain. It will be worth while to keep some of the aberrant Chickens of the Blue Duns, and record what is the result of their propagation *inter se*.

I am now much inclined to transfer these birds to the Game Fowls, and altogether abolish the "Blue Duns" as a distinct race, but await the consent of able amateurs in Poultry. There are Blue Dun families belonging to several breeds: we have them in the Spanish, the Polish, the Game, and the Hamburghs, and it would be more correct to refer each Blue Dun to its own proper ancestry. It is a nice question, which there is not space to discuss here, how far colour is typical of certain species or sub-species; in some *parts* of a bird it never varies at all, but in the general plumage it varies considerably, under limitations; thus, I never saw or heard of a *brown* or *golden* Spanish Fowl. Meanwhile, descriptions of one or two other Blue Duns will aid in attaining a clearer view. The first, a decided Game Fowl, cannot differ much from ours. "You say that your Blue Duns are perhaps the result of accidental crossing, whereas they have been known, both in Yorkshire and Lancanshire, for many years, as a pure, unmixed, and distinct variety. They are also the most courageous and impetuous of the Game Fowls, seldom having been known to lose their first battle. Their plumage is, I think, the most beautiful of any of their species. The breast is of a rich dark slate-colour, the feathers having a broad margin of a darker hue, the saddle of a deep blood-colour, and the hackles of the neck and tail of a dark red, gradually shading to a beautiful

golden tint; the tail black and flowing, with a brilliant green shade. The Cock is thus a most gorgeous looking fellow, of a strong muscular frame, without offal; his legs are blue. The Hen is marked in the same manner, all over the back and body, with the hackle of the same golden colour. The Chicks, when first hatched, are of a reddish brown, but with no particular distinctive markings: *this* I have only from hearsay, from the man who keeps them for us, and who has been a breeder of the variety for many years."—*F. S. B.*

There is also a Blue Dun, which resembles the Hamburghs in every particular except in colour, *and a disposition to sit*, which makes them more useful to the farmer, who must, if he keep but one variety, have Fowls which will rear their own young, which none of the Hamburghs will do. Mr. Bissell says—"These are very fine noble-looking birds, and as useful as they are beautiful; and they have, to my knowledge, permanently bred without at all 'crying back' or running out, for some years."

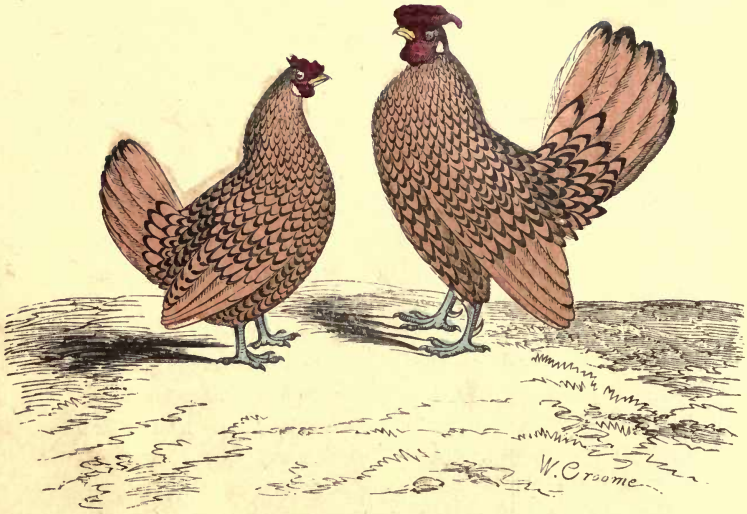
THE LARK-CRESTED FOWL.

HERE, again, as with the Cuckoo Fowl, is a breed that has been treated with undeserved disregard. Many London dealers might call them Polanders, and indeed many ill-bred Polands have crests inferior to some of these in size. But the shape of the crest, as well as the proportions of the bird, are different. Aldrovandi perceived the distinction. He calls the one "Our farm-yard Hen, known to everybody, entirely white, and crested like a Lark:" the other is his Paduan Fowl. The first, of whatever colour, is of a peculiar taper-form, inclining forwards, as Aldrovandi's old-fashioned wood-cut well represents, with a moderate, depressed, backward-directed crest, and

deficient in the neatness of the legs and feet so conspicuous in the Polands; the latter are of more upright carriage and more squarely built frame. Set the two side by side, and their discrepancy will be apparent. I would distinguish the Lark-crested from the Polish Fowls, by the former having an occipital crest, the latter more of a frontal one. Mr. Selby's volume on Pigeons, in the Naturalist's Library, gives a figure and description of the *Columba dilopha*, or Double-crested Pigeon, which has both these forms of top-knots united on its head.

Lark-crested Fowls are of various colours; pure snow-white, brown with yellow hackle, and black. How far these sorts required to be subdivided, has not yet been investigated. The first of these are perhaps of a more brilliant white than is seen in any other domesticated gallinaceous bird. The colour is much more dazzling than that of the White Guinea Fowl, or the White Pea Fowl. This white variety is in great esteem with many farmers' wives, who will keep it, to the entire exclusion of any sort. They certainly have a remarkably neat and lively appearance when rambling about a homestead. They look very clean and attractive when dressed for market: an old bird, cleverly trussed, will be apparently as delicate and transparant in the skin and flesh as an ordinary chicken. The feathers are also more saleable than those from darker coloured Fowls. My own experience leads to the suspicion that if they are a little more tender than other kinds raised near the barn-door, it is only a little; and I must think them to be in every way preferable to the White Dorkings. In the Cocks a single upright comb sometimes almost entirely takes the place of the crest. The Hens, too, vary in their degree of crestedness, some not having above half a dozen of feathers in their head-dress. If they were not of average merit as to their laying and sitting qualifications, they would not retain the favour they do with the thrifty housewives by whom they are chiefly cultivated.

These neglected varieties are well known to the itinerant Fowl-dealers, who traverse the country in search of Chickens to be fatted for market. From them they may easily be obtained at a reasonable price. The best way would be to order a random lot of a score or two, select the best for stock, and consume those which remain. These people value Fowls entirely according to their age, size, and weight. Almost the only exception is, that they will now and then give a trifle more for a handsome, showy, adult Cock Bird, particularly if he exhibit marks of Game blood. But the most amusing speculation is to purchase Eggs in country towns, from the wives of those small farmers who bring their own produce to market, and take the chance of whatever may be hatched from them. By keeping ten or a dozen sitting Hens, and obtaining Eggs from different localities, a sufficient number of various Chickens may be obtained in one season to afford the breeder a good opportunity of exercising his discriminating judgment. A very little experience will soon point out which are mere half-breds of well-known sorts, and which show symptoms of belonging to a distinct race; and that long before they have attained their full growth—sometimes as soon as they have issued from the shell. In a harmless lottery like this, some prizes are sure to turn up; the only blanks being addled Eggs.



MR. WISTAR'S SEBRIGHT BANTAMS.

CHAPTER XVIII.

THE SMOOTH-LEGGED BANTAM.

THE small White, and also the Coloured Bantams, whose legs are heavily feathered, are sufficiently well known to render a particular description unnecessary. Bantam-fanciers generally, with Sir John Sebright at their head, prefer those which have clean bright legs, without any vestige of feathers.

The rule with fanciers is, that a thorough-bred Cock should have a rose comb; a well-feathered tail, without the sickle feathers, however; full hackles, a proud lively carriage, and ought not to exceed a pound in weight. The nankeen-coloured, and the black are the general favourites.

They are said to have been imported, by the late Sir John Sebright, from India. For perfection of model, and beauty of plumage, nothing can exceed them. The pair portrayed on the opposite page are in the possession of Mr. Wistar, of Germantown, and were procured for him by a friend in England. They are, as may be seen in the portraits, beautifully marked; the ground of the feathers being a rich orange-brown or cream-colour, and each feather pencilled round the edge with black, with the greatest uniformity. They are sometimes called the "Sebright Jungle Fowl." They are bred in and about London, also in various part of England and Ireland, with the

most scrupulous care. In London there are stated times for the exhibition and sale of these birds; and Mr. Nolan tells us, that "the regulations of the Society of London Amateurs, require that each exhibitor shall offer his birds for sale, after the exhibition, and may bid himself, and put on a prohibitory amount of purchase-money. It is on record that Sir John bid up one of his diminutive Hens to £29, and bought her in at that price. And it is recorded in the *Illustrated London News*, of 20th February, 1847, that so late as that date, two Hens and a Cock, of these beautiful emblems of pride and consequence, sold for £50 and 1s., being a shilling more than the amount put on them by their owner. At the sale of the late lamented baronet, the golden grounded birds averaged £5 a brace, and the silver spangled £8 a brace; although they are becoming comparatively abundant, they still keep up a high price in the London market, if well marked. There has been lately offered here, some fine specimens, from Sir John's own stock, at a very low figure. I do not think any thing could exceed their perfection of feather. A lady near Shrewsbury has procured some fine specimens, of both gold and silver spangled, from this neighbourhood; if she still retain them, I think she may challenge England; as far as I can judge, they are quite superior to those that took the prize in London. Some ladies in the Queen's County, have procured fine specimens from the late baronet's stock; I have no doubt, but under their fostering care, the breed will be kept up with as much ardour as during the lifetime of the great poultry-patron Sir John, and that we will be breeding them, as in the baronet's lifetime, 'to a single feather,' and retain their character of the 'prettiest of domestic birds.' The male birds should stand about twelve inches high; the standard weight being twenty-two ounces; the plumage as above described, (the rose-comb is preferred); the wattles are moderately long; face and throat bare; no top-knot or ruff on neck;

as free as possible from hackle; tail without the plume, or what is called hen-tailed; perfectly clean-legged."

Our author, Mr. Dixon, says of Bantams:—We are now timorously approaching the most treasured pets of the Fancy. We have advanced with a tolerably steady footstep through the flocks of well-sized creatures that crowded beside our path—the Turkeys, the Peacocks, the Geese, and the Swans,—and should not have feared to encounter even an Emeu or a Cereopsis, had chance planted one in the way; but a sudden fear and trembling creeps over us as we draw near to these mysterious elves and pigmies of the feathered world. Gulliver got on very well in Brobdingnag, so long as he did not attempt any leap beyond his strength; but the minute Lilliputians teased him sadly by their numbers, their activity, and the unseen and unsuspected places from whence they issued. But twenty or thirty years back, Bantams would have supplied a more formidable muster-roll than they now do.

Bantam is the name of a town and kingdom in the island of Java, famous for its trade in pepper, of which the Dutch despoiled us, and for its unrelenting punishment of thieves. "The Laws of this country" (Achin, the north-western part of Sumatra, famous for the juicy and refreshing fruit called the Pumple-nose, and the seductive and intoxicating herb *Ganga* or *Bang*,) "are very strict, and offenders are punished with great severity. Neither are there any delays of justice here; for as soon as the Offender is taken, he is immediately brought before the Magistrate, who presently hears the matter, and according as he finds it, so he either acquits, or orders punishment to be inflicted on the Party immediately. Small Offenders are only whipt on the back, which sort of punishment they call *Chaubuck*. A Thief, for his first offence, has his right hand chopt off at the Wrist: for the second offence off goes the other; and sometimes, instead of one of their hands, one or both of their feet are cut off; and sometimes (though

very rarely) both hands and feet. If, after the loss of one or both hands and feet, they still prove incorrigible, (for they are many of them such very Rogues and so arch that they will steal with their Toes,) then they are banished to *Pulo Way*, during their lives.

"On *Pulo Way* there are none but this sort of Cattle: and though they all of them want one or both hands, yet they so order matters, that they can row very well, and do many things to admiration, whereby they are able to get a livelihood; for if they have no hands, they will get somebody or other to fasten Ropes or Withes about their oars, so as to leave Loops wherein they may put the stumps of their Arms; and therewith they will pull an oar lustily. They that have one hand can do well enough; and of these you shall see a a great many, even in the City.

"Neither is this sort of punishment peculiar to the *Achinese* Government, but, probably, used by the other Princes of this Island, and on the Island of *Java* also, especially at *Bantam*. They formerly, when the King of *Bantam* was in his prosperity, deprived men of the right hand for a Theft, and may still, for aught I know. I knew a *Dutch*-man so served: he was a Seaman, belonging to one of the King of *Bantam's* Ships."—*Dampier's Voyages*, vol. ii. p. 138.

The same king (an. 1688) expected to receive from his subjects a very unusual mark of respect. "The Queen of *Achin*, as 'tis said, is always an old Maid, chosen out of the Royal Family. What ceremonies are used at the chusing her I know not: Nor who are the Electors; but I suppose they are the *Oronkeys* (Great Lords). After she is chosen, she is in a manner confined to her Palace; for by report, she seldom goes abroad, neither is she seen by any People of inferiour rank and quality; but only by some of her Domesticks: except that once a Year she is drest all in white, and placed on an Elephant, and so rides to the river in state to wash herself: but

whether any of the meaner sort of People may see her in that progress I know not; for it is the custom of most Eastern Princes to screen themselves from the sight of their Subjects: Or if they sometimes go abroad for their pleasure, yet the People are then ordered either to turn their backs towards them while they pass by, as formerly at *Bantam*, or to hold their hands before their eyes, as at *Siam*."—*Idem*. p. 142.

Our little friends the Bantams clearly show where they come from. Their passionate temper arises from the superabundance of pepper, their diminutive stature from the Javanese practice of foreshortening, their turgid comb from the succulent Pumple-noses, their overweening assumption and arrogance from the excitement of the herb *Bang*, and their propensity to make every rival turn tail, from the established court etiquette of the old Bantam regime.

THE YELLOW OR NANKEEN BANTAMS are about the most useful of their tribe, and not the least ornamental. The Hens are mainly tinted with a ginger-yellow, and have dull blue legs and feet, and small comb. There is a sub-variety, in which they are more brown, after the fashion of some Game Hens. The Cocks are decked in red, orange, and scarlet, mostly with the false speculum of iridescent wing-coverts, altogether of a flashy appearance; and, indeed, when good specimens of their kind, are really beautiful little birds. Of late years they have much gone out of fashion, but deserve to be rescued from utter extermination. Their Eggs are large in proportion to the size of the layer, very rounded and full at both ends. They are excellent mothers, particularly for such delicate things as Partridges, Pheasants, and Guinea Fowls. One Hen, however, that we have, prevents this use being made of her powers, by invariably stealing a nest, though at other times she roosts in the fowl-house, with the rest of the Poultry. She is usually very successful in her efforts, only we now and then have Chickens at unseasonable times of the year.

For instance, one October she brought home seven little vivacious balls of down, that certainly would not have had to encounter the dead months of autumn and winter, had any other opinion than their mother's been consulted.

The browner variety of this bird is sometimes called the Partridge Bantam: such are almost minatures of the Golden Hamburgh Fowls, both Pencilled and Spangled. There is the same double comb, pointed behind, the same blue legs and characteristics of form and plumage. But it would be wrong to conclude from these resemblances that it is a *dwarfed* Hamburgh Fowl; all we can say is, that this bird represents (as some naturalists express it) the Hamburghs among the Bantams; just as many birds of one Continent are found represented in another by corresponding, though quite distinct species of the same genus.

The Sebright Bantam has very much thrown the preceding into the shade. Their beauty is of a different class, but it is questionable whether their merits are greater. Here we have delicate pencilling in the shape of brilliant colouring. How and whence they first appeared in England is a mystery, and likely to remain so. Sir J. S. Sebright has the credit of having "originated" the breed, a reputation which we believe to be as well deserved as that he "originated" the creation of the feathered race in general. Those in his confidence were accustomed to report that he would travel, "or send," as far as two or three hundred miles to obtain a choice bird, which was doubtless true; but had they added many thousands of miles to the two or three hundred in the "sending" part of the story, they would, we believe, have been still nearer to the truth. That Sir John treated his birds, when procured, with jealous care and skilful nurture, will be readily granted. But while breeders continue to be so anxious, not merely to conceal their system of management, (in the earliest stages at least,) but even to mislead inquirers, those who cultivate natural history

for its own sake will not be justified in arriving at hasty conclusions from such information.

We are at once struck with surprise at the impudence of the Sebright Bantams. Oh, the consequential little atom! That such a contemptible minikin as that should have the assurance to parade his insignificant person in the presence of great ladies, the female members of families of weight and substance, before the Misses, and still worse, the Mistresses Dorking, Cochin-China, and Malay, to presume to show marked attention, nay even, I declare! to ——. Well, there is no knowing to what lengths impudence will go, so long as Bantams survive extermination.

Here is a little whipper-snapper! Pretty, certainly, and smart, but shamefully forward in his ways. His coat is of a rich brownish yellow; almost every feather is edged with a border of a darker hue, approaching to black. His neat slim legs are of a light dull lead-colour; his ample tail, *from which the sickle feathers are absent*, is carried well over his back. His dependent wings nearly touch the ground. He is as upright as the stiffest drill-serjeant, or more so, for he appears now and then as if he would fall backwards, like a horse that over-rears himself. His full rose comb and deep depending wattles are plump and red: but their disproportionate size affords a most unfortunate hold for the beak of his adversary: but he cares not for that; a little glory is worth a good deal of pecking and pinching, and it is not a slight punishment, nor a merely occasional infliction of it, that will make him give in. The great Hens, too, that look down upon him, and over him, think proper to do battle with him on a first introduction, though they afterwards find out that they might as well have received him in a more feminine style:

> "For Hens, like Women, born to be controlled,
> Stoop to the forward and the bold."

The plumage of the Hens is similar to that of the Cocks. They are very good layers, most excellent sitters, assiduous and affectionate mothers, but most murderous step-mothers: that is, if you attempt to change, or add to, the number of the brood they have hatched themselves, they will welcome the little strangers by making raw-head and bloody-bones of them before you can return from fetching a pan of water to set before the coop. Their own Chickens are dark-brown when first hatched, with no particular marks about them whilst young. This is the variety figured by Moubray as the "Bantam or Pheasant Fowls."

THE SEBRIGHTS are divided into two varieties,—the Gold-laced, and the Silver-laced. The model Gold-laced Cock should be of a brilliant brownish yellow, with every feather, including his neck-feathers, narrowly laced or marginated with black all round them: his flight and tail-feathers of the same ground-colour as his body, but tipped, instead of laced, at the ends with black; rose comb nicely pointed behind; his legs dull light-blue; his weight not to exceed twenty ounces. The Gold-laced Hen should correspond in all particulars, except weight, which must not exceed one pound. Silver-laced Bantams are precisely the same as Gold-laced, in all respects except the ground-colour, which should be as nearly white as possible, although they are generally inclined to be of an exceedingly light and delicate cream-colour.

THE BLACK BANTAM is a most beautiful example of a great soul in a little body. It is the most pugnacious of its whole tribe. It will drive to a respectful distance great dunghill Cocks five times its weight. It is more jealous, irascible, and domineering, in proportion to its size, than the thorough-bred Game Cock himself. Its combativeness, too, is manifested at a very early period. Other Chickens will fight in sport, by the time they are half-grown, but these set to work in good earnest. One summer we bought a small brood, as soon as

they could safely be removed from their mother: there were two Cockerels among them. They were little things, beautifully shaped, but ridiculously diminutive: fairy Chickens, some of our friends called them They had not been with us long, before the liberal supply of barley began to excite them; and the two little imps spent the greater part of their time in fighting, which only made us laugh, judging serious injury impossible. But shortly, observing one unusually triumphant, (for it had always been a sort of drawn game between them,) and the other walking about in an odd and uncertain manner, though firm and fearless, I found that this latter had both its eyes closed from wounds received the day before. I carried it to my dressing-room, to relieve it by sponging, and set it on the stain-cloth, while I went to fetch some warm water. Still blind, it began crowing vivaciously. In a few minutes, its eyes were unsealed, and it was returned to the yard. But battle after battle was immediately fought, and we were obliged to eat one of the combatants to prevent the mutilation of both. We can consequently confirm the statements of those who praise the excellence of their flesh, particularly if it be accompanied by a little good bread-sauce. One, that I have seen, was in the constant habit of fighting, or rather sparring, with a little spaniel that belonged to the same owner. Though apparently attacking each other with great fury, they never seemed to be really in earnest. The arrival of strangers was generally the signal for the commencement of this sham-fight, which ended without bloodshed as soon as one or both of the combatants were out of breath. The spaniel was mostly the first to give in, when the victor evinced as much triumph as if he had vanquished a feathered foe.

The Black Bantam, in his appearance, is a pleasing little fellow. He should have a full rose comb, clean and sinewy legs, glossy plumage with almost metallic lustre, of a different tint to the glancing green of the Spanish Fowl, arched and

flowing tail, waggish impudent eye, self-satisfied air and gait. The Hen is of a duller jetty black, is less knowing in her manner, and I think in every way of inferior capacity. They have great credit for fulfilling their maternal duties well; but I have found them less affectionate and careful than other Bantams. They are great stayers at home, prowling very little about, and therefore are desirable in many situations, such as suburban villas that are surrounded by captious neighbours. They will remain contented with the range of a moderate stable-yard, and the least bit of shrubbery; and will do much good by the consumption of numerous insects. They are reputed good layers during winter; but that will depend on the liberality with which they are fed. Cooks say that their Eggs, though small, are "very rich," which means, perhaps, that they contain a greater proportion of yolk than those of larger Fowls. Guinea Fowls' Eggs are prized for the same quality; and any one may, at breakfast, observe how much less a proportion of white there is in them, than in those of the Turkey. Black Bantams' Eggs are smooth, tinged with buff, decidedly long-oval in most individuals, and with a zone of irregularity towards the smaller end in some.

The new Chicks are covered with black down, which occasionally has a grayish cast under the belly: bill, eyes, feet, and legs, black. The female Chicks are not bigger than the queen of the black and yellow humble-bees, and their slender little legs appear fitter to belong to an insect than a Chicken. A desire to obtain the largest possible brood, induced me to hatch some under a great Dorking Hen, because she can cover so many Eggs; but I only overreached myself. The big Hen was too heavy and clumsy to officiate as nurse to such fragile atoms.

When brought up by their own mother, a spent cucumber-frame, covered with a net, is a good place to keep them the first month. The hottest and finest part of the season should be

selected for them to pass their chickenhood in. When full grown and plumed, they are not more tender than other Poultry, though they are better suited for confinement in wards.

Those who keep any other variety of Domestic Fowl, and are desirous of having plenty of Chickens, as well as Eggs, had better not permit a Black Bantam Cock to enter upon their premises.

THE WHITE BANTAM very much resembles the above, in every respect, except colour: the rose comb may, perhaps, in some specimens, be a little more exuberant. But they are not much to be coveted. The white of their plumage is not brilliant, and is sure to be un-neat in the places where they are usually kept. Were they really guilty of the savage, objectless, and unnatural ferocity that is attributed to them, they would all deserve to have their necks wrung; but the tale wants confirmation. The "Illustrated News," for Feb. 20th, 1847, gives some particulars.

THE FEATHER-LEGGED BANTAMS, are now as completely out of vogue, as they were formerly in esteem. We ought, perhaps, to have referred them to the anomalous Fowls. The chief interest attached to them, lies in their hinting to the naturalist an affinity with the Grouse tribe. There were several sorts of them in repute, but they are now nearly extinct in this country. See Albin, vol. III., p. 32.

CREEPERS, so called from the shortness of their legs, and JUMPERS, from their halting gait, are rather to be considered as accidental deformities collected from unhealthy families of Bantams, than as constituting any distinct variety. A sufficient proof of which is, that many of them are scarcely able to propagate their kind. "The Bantam I spoke of as living so long (seventeen years) was of the Feather-legged sort, spotted cream and white, laying merrily as ever to the last; but not having warmth sufficient to hatch, I always *made her a present* every year of a few little Chicks."—*H. H.* Some of these are

the very smallest of their genus, being not larger than Pigeons, and not so tall. They are now much out of fashion, and are rarely seen. They are well known, however, to the middle-age curiosity collectors. "But the Hens which Longolius calls pigmy, and renders into German by 'Kriel,' (no such word is to be found in Bailey's Dictionary,) those, as I have just said, exist here and there; they creep along the ground by limping, rather than walking; we call them dwarfs."—*Aldrovandi.*

Again: "Although we declared that we would not give another figure of common Hens, we have thought right, on account of their rarity, to exhibit one of the pigmy or dwarf sort, which we have said that many people unadvisedly consider as the Hadrian Hen, (of classical authors,) although it belongs to the same kind. But this Hen was all black, except the larger feathers of the wings, which were whitish at the tips; she had likewise white spots all round about her neck, emulating the full moon; and lastly, a round spot, of an ochrey colour, encircled her eyes. Her head was top-knotted. The wattles, and comb, which was very small, were of a rather intense red; the feet were bright yellow; the claws small, exceedingly white."

Aldrovandi gives a rich collection of three-footed, four-footed, double-headed, and double-bodied Fowls, that occurred to him in the course of his laborious researches.

The English edition of Buffon, informs us that Jumpers are the same as Cambogia Hens; which, however, does not much add to our knowledge of the variety.

Bantams, in general, are great devourers of some of the most destructive of our insects. The grub of the Cock-chafer and the Crane-fly are especial favourites with them. Their Chicks can hardly be reared so well, as by allowing them free access to minute insect dainties; hence, the suitableness of a worn-out hotbed for them during the first month or six weeks. They are thus positively serviceable creatures to the farmers, as far as their limited range extends, and still more so to the

gardener and the nurseryman. Mr. James Cuthill, of Camberwell, complains, in the *Gardeners' Chronicle*, for December 1, 1849, of the plague of woodlice, from which he, and others similarly engaged, had seriously suffered. "It matters not," he says, "whether it is the blossom of a Cucumber, or that of a Pine-apple that comes in their way, the fruit of a Melon or that of a Cucumber. I have lost many an ounce of Strawberries through their depredations, and also, many an early Cucumber that would have brought me 3*s*. 6*d*. in the market. The means I have employed for their destruction have been toads, which are effectual; but they are expensive, being 4*s*. a dozen. Many of them die, and except they are kept in quantity, the woodlice cannot be kept down. My object now, however, is to state that, from some trials I have made, I am convinced that woodlice may be killed by the use of Bantam Fowls. This plan may be put in operation by any one, even at this time of the year. I first had a hundred woodlice caught at a rubbish heap, and gave them to three Bantams; they ate them up in something less than two minutes. I had these birds in attendance when turning over a rubbish heap, and not a woodlouse was allowed to escape, nor any insect, the Bantams devouring every thing. It will thus be seen that, if Bantams were encouraged and brought up in gardens, they would effect much good; and I am of opinion that it will soon be found as necessary to keep Bantams to kill vermin, as it is to keep cats to keep down rats and mice. They will save various garden crops from injuries to which they would be otherwise exposed. They would scratch a little, to be sure, but so do cats; and if the smaller kinds of Bantams are kept (those about the size of a Partridge) their scratching would do little harm." We give this statement as being the experience of a practical man.

CHAPTER XIX.

THE DUNGHILL FOWL.

THIS is sometimes called the Barn-door Fowl, and is characterized by a thin, serrated, upright comb, and wattles pending from each side of the lower mandible; the tail rises in an arch, above the level of the rump; the feathers of the neck and rump are long and line-like; and the colour is finely variegated. The female's comb and wattles are smaller than those of the Cock; is, herself, less in size, and her colours are more dull and sombre. In the best specimens of this variety, the legs should be white and smooth, like those of the Dorking, and their bodies round and plump; being mongrels, they breed all colours, and are usually from 5 to 7 or 8 lbs. per pair.

THE DOMINIQUE FOWL.

THIS seems to be a tolerably distinct and permanent variety, about the size of the common Dunghill Fowl. Their combs are generally double, or *rose*, as it is sometimes called, and the wattles small. Their plumage presents all over a sort of greenish appearance, from a peculiar arrangement of white and blue feathers, which is the chief characteristic of the variety. They are hardy, excellent layers, and capital incubators. I would use them in preference to any other for hatching out the Eggs of the larger kinds.

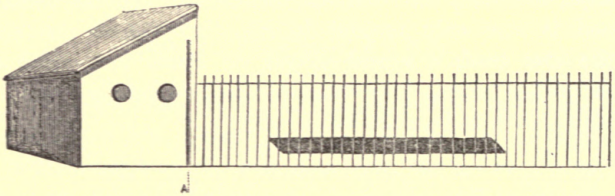
Other varieties of the Domestic Fowl there are, which it is not deemed necessary particularly to notice, as the Adrian Fowl, of which Aristotle says, they lay "every day, and sometimes two Eggs a day," the Sausevere Fowl, the Alexandria, the Carux, the Lombardy, the Media, the Rhodes, the English Dwarf and Raven, the Widow Hen, and the French large-footed Fowl. Those which we deem the best have been, we hope, accurately described, and their several qualities noticed; and it now only remains to say, that should this treatise ever reach a second edition, all Fowls with which we meanwhile become acquainted, possessing qualities worthy of notice, shall find a place in the work.

COLONEL JÁQUES'S CHICKEN COOP.

The following extract of a letter, received from my friend, H. L. Devereux, Esq., of Boston, will show the fancier the success with which Chickens may be raised by an artificial mother, and also give a capital idea of the right sort of coop for young Chickens, whether to be raised with, or without their natural mother. He says:—

I will now say a few words about *Chicks* and *Chickens*, which, if you think worthy, you are at liberty to insert in your forthcoming book. In all the Poultry books I have seen, there are very poor specimens of "*chicken coops*," some with a barrel turned down, and the poor Hen tied by the leg; others, with a coop shaped like a Major's cocked-hat; not one of them properly answering the purpose for which they are intended. The following drawing, which I send you, is from the original, first got up by that veteran breeder, Col. Samuel Jáques, of Ten Hills Farm. It is light, easy to be removed from one place to another every day, or as often as you please. It has a tight, and an open part, answering the double purpose of setting the Hen, and keeping her and the Chicks in, until they

are able to take care of themselves. The dimensions are for the tight part, 18 inches high on the back, rising to 22 front, and 18 inches each way on the bottom, with holes bored to admit air. The top has a lid to open, and a slide in front, to shut in the Hen. The front or open part may be 3 to 6 feet long, slatted with laths, with a hole cut through the bottom, for the Hen to scratch in.



Again, I think Chickens can be raised as well without as with a Hen, even though you take the Chicks away in an hour or less after coming from the shell. Some of my handsomest Pullets were raised this past season without a Hen. In order to do this, you want a small coop, built in a "*lean-to*" shape, 3 to 5 feet long, high and wide in proportion, with a small door in front, and two squares of glass to admit light and sun, when cold and rainy. A piece of sheepskin, with the wool on, nailed to a board, would answer for them to run under and get warm. A coop of this description was shown at the Norfolk County Fair, in September last, by Mr. White, of Randolph, invented and made by Mr. Edwin Allyn, of Boston.

EARLY CHICKENS.

The importance of early Chickens, and the method of rearing them, are plainly set forth in the following extract, which I make from a letter received from my friend, E. R. Cope, Esq. He says:—

There can be no debate about the importance of hatching out Chickens early in the season, and it is equally important to the farmer, who raises for profit, and the "Fancier," who desires to show some fine specimens each year.

It is well known that "spring Chickens" always command a high price, and there is rarely a supply to be obtained. You have doubtless seen, in the month of June, pairs of birds exposed for sale, which, upon inquiry, you found to be 'spring Chickens,' and the price *seventy-five cents* or upwards per pair. These Chicks were probably hatched out in the month of March or April; and, of course, the owner had very little time to put flesh upon their bones, to say nothing of fat: still they were worth in the market, *seventy-five cents*. Now, suppose for a moment, the birth of these Chickens could be dated back to January, or even earlier, and brought to market in May or June, plump and fat as Reed Birds. We would not have been compelled to inquire of our friend the farmer, what description of bird he had for sale, for their well-defined proportions would have, at the first glance, informed you to what species they belonged; and it is difficult to say what price you would have been asked to pay for them.

But, asks our friend the farmer, how am I to raise Chickens in the winter months? I will tell you, my friend; and when you hear my answer, you will wonder you never thought of the same plan before. Place a small stove in your chicken-house, which can be heated with chips and wood, that otherwise might rot around your wood-pile; and, by this means, you can keep up a temperature of 55 degrees, and raise Chickens just as well (better, in my opinion, and with much less loss, than when allowed to roam through the wet grass in spring and summer,) as later in the season. Then again, those Fowls* you

* Good Shanghae or Cochin China fowls will begin to lay when about five and a half or six months old. This with great certainty, especially if the season be favourable.—*Ed.*

raise to fatten for winter sales, if hatched thus early, will com mence laying about September, and produce you Eggs, at a time when they command the best price.

A word to the Fancier :—If you adopt the system of early hatching, you will see the advantage of it in the extra size your Fowls attain the first season. You will not be subject to the vexation of seeing your young Chicks die off, one by one, when exposed to the hot sun of July, August, and September ; for they will have attained size and strength to bear it. You have probably had some Chickens out as early as April, and if so, have you not observed how much better they thrived than those clutches hatched out two or three months later? And then, when these April Fowls were nine months old, have you weighed them? and also, when your June Fowls reached the same age, did you weigh them, and compare the weights? Lest you did not do so, I will tell you what would have been the result: the early Fowls would have weighed twenty-five per cent. heavier than the late ones; and I am well satisfied, if the experiment had been tried with January and June Fowls, the result would have been thirty-three per cent. in favour of the former.

Being fully satisfied of the importance of early hatching, I this year temporarily arranged a small room for the purpose, by placing in it an air-tight wood-stove, and a thermometer. Around the stove, and fast to the floor, I nailed strips of boards, four inches wide, and filled the enclosure thus formed with clean sand, for the Chickens to dust themselves in. By the time these arrangements were completed, (Nov. 2d, 1850,) I had a clutch of eight Shanghae Chicks nearly ready to take possession of the room. I would here remark, that I do not set my Hens in this warm room, but suffer them to hatch out their Eggs in the chicken-house, where I keep no fire.

On January 16th, 1851, I had another clutch of Chicks, (Royal Cochin China's, eight in number,) ready to remove to

the warm room; and within a week, I expect to have two more clutches hatched out.

In my stove-room, I am careful to have the temperature kept regularly at fifty-five degrees;* and, by means of my air-tight stove this is easily accomplished.

My young stock thrives remarkably well, and, so far, I have lost but one Chick, and this was from an accident, and not disease. Having access to the sand-bath before described, at all times, they kept themselves entirely free from vermin, and, in consequence, feather and generally improve faster than is usually the case.

By giving this subject attention early in the season, say, commence setting Hens the early part of October, I am well persuaded any one may raise one to two hundred Chickens, that can readily be sold in the market for seventy-five cents to one dollar per pair, in the months of March, April, May, and June. To a farmer, there will be no additional cost: as before remarked, the waste pieces around his wood pile will be ample fuel; and he will experience no difficulty in finding one of his men ready to undertake the superintendence of the room, (it is a nice, warm job for cold weather,) and also to attend to the little business he is expected to look after during the winter.

The only additional cost to the Fancier, will be six dollars for one cord of hickory wood, which will be all he can consume in an air-tight stove during the winter, or, at all events, the above-named quantity of fuel will keep a room twelve feet square at a temperature of fifty-five degrees through the winter months.

My only object in writing the above, is to endeavour to attract the attention of those who raise Fowls for profit or fancy to a branch of the subject heretofore much neglected, and if I succeed, even to a small extent, I will feel abundantly compensated.

* I should prefer a temperature of not less than 60° nor more than 70°.—*Ed.*

THE GALLUS BANKIVA, OR THE BANKIVA COCK,

(*See Frontispiece.*)

Is nearly twice as large as our common Bantams. There is no down around his eyes or upon his throat; his comb is ample, irregular, and deeply serrated; and the wattles are well let down from each side of the lower mandible. He has neck and rump hackles, long and slender, of a brilliant golden-orange colour; the upper part of the back is bluish black; the centre and lesser wing-coverts are of a rich chestnut colour; the tail is black, with rich green, and blue reflections; and all the under parts are of a black or darkish hue. The specimen portrayed, as well as the others forming the frontispiece, were presented to the Academy of Natural Science, in Philadelphia, by Thos. B. Wilson, Esq. Its *habitat* is the East Indies.

THE GALLUS FURCATUS, OR THE FORK-TAILED COCK,

(*Vide Frontispiece.*)

Was first described by M. Temminck, in 1813. It is nearly two feet in length from beak to the extremity of the tail. The cheeks are bare, and the head differs from the Gallus Bankiva, in being furnished with a simple *entire* comb, and the under mandible and throat with a *single* large wattle, springing from the centre—all of a brilliant red colour. It differs from other species in the form of the neck-hackles particularly. They are remarkably short and round, and of the hue given in the figure. The tail is usually carried more in a line with the body than in the Bankiva Fowl, and has a slightly forked form; hence the name. The beak, legs, and feet are yellow. It is said to be abundant in Java, and is often seen upon the edges of woods and jungles, but, upon the slightest alarm, runs for cover.

GALLUS SONNERATII, OR SONNERAT'S WILD COCK,

(*Vide Frontispiece.*)

Has been dedicated by M. Temminck, to its discoverer. The first notice we find of it which can be trusted, is in the voyage to India, by that traveller. He was of the opinion that this Wild Cock was the stock from which our Domestic Fowls are derived. But this is scarcely possible; for, not to speak of the difference in size, the plumage is quite different; indeed, none of the domestic races in India bear the least resemblance to it. It has hitherto, so far as I know, proved untameable. A gentleman of my acquaintance, who was some ten years in the British service in India, informs me that on the return home, they had some two or three hundred "Wild Cocks," on board, all of which refused to eat, and died in a few weeks out. It is about two-thirds the size of our smallest Dunghill Fowls; in model is much more slender and graceful; the comb is single, large, slightly indented, and the wattles are double, and well developed. But the most singular part of this bird is its plumage. The stem, or shaft of the long hackle feathers is of a bright golden-orange hue, and, in the centre, and at the tip, dilate into a flat horny plate, similar to what is seen in the wings and tail of the Bohemian Waxwing. Their appearance is both singular and beautiful. The centre of the back, the throat, breast, belly, and thighs are of a deep and rich gray, having the shafts and edges of a paler tint. The tail is of a rich and deep green; and the beak, legs, and feet are yellow. About the females, there is nothing peculiar that may not be seen on inspection of the portraits, which are from nature, and singularly faithful. Indeed, minute descriptions throughout the work has been rendered unnecessary by the distinguished artist.

The peculiar structure of the neck-hackles of the Gallus

Sonneratii will be seen by an inspection of the cuts on the opposite page. I procured feathers from the neck of the Gallus Bankiva, and also from that of the Gallus Furcatus, as well as from the Wild Cock of Sonnerat, so that the reader may satisfy himself of two things: first, that the three birds in question are quite distinct varieties; and that it is scarcely possible they are in any way the progenitors of our Domestic Poultry, as some have asserted. That the Wild Fowls do not mix or cross with each other, is obvious from the fact that they are all remarkably uniform in size, plumage, and general appearance. The gentleman above referred to, told me that the two or three hundred on shipboard were all as much alike as any flock of wild birds he ever saw.

The female of Sonnerat's Cock is about one-third less than he; she is rather a plain-looking bird, having scarcely any comb or wattles. On the back, she is of a dirty brown-colour; and on the breast, the feathers are of a dull white, each laced with black or brown. The plumage has no trace of the flat horny structure which adorns the neck-hackles of the male; nor is any part of his plumage so, except the neck; at least, the rump-hackles* have it only, if at all, in a very slight degree. I could not, on inspection, perceive that they had any.

The Bankiva Hen is scarcely so large as Sonnerat's, and is a still plainer looking bird; her prevailing colour is brown, the breast is of a rather livelier hue than the back; and she also has little or no show of comb or wattles.

Doctor Latham says, that Sonnerat's Cock is by far the boldest and strongest, in proportion to his size, of any other; and that the Cock-fighters of Hindostan anxiously seek him, as he rarely fails to secure a victory over the largest Game Cocks.

The specimens from which the drawings were made, were purchased by Thomas B. Wilson, Esq., of Pennsylvania, at the sale of the Duke of Rivoli's collection, and by him presented to the Academy of Natural Science of Philadelphia.

* On closer inspection I found the rump hackles so characterized also.

The neck-hackle of the Gallus Bankiva is of usual length, but is distinguished by having the tip nearly square, and edged slightly with black, thus proving it, like the Gallus Sonneratii, to be a distinct variety. There is nothing peculiar in the rump hackle. The neck and rump-hackles of the Gallus Furcatus are quite peculiar, being very broad and short, giving to the plumage quite an imbricated appearance, unlike that of any other species.

Neck-hackles of G. Bankiva.

Neck-hackles of G. Sonneratii.

Neck-hackles of G. Furcatus.

CHAPTER XX.

CAPONIZING FOWLS.

THE following history and method of caponizing, I extract from Mr. Brown's Treatise on Domestic Poultry. He says:—

The art of making Capons has been practised from the earliest antiquity, in Greece, India, and China, for the purpose of improving the flesh of birds for the table, in tenderness, juiciness, and flavour. But Capons, in point of fact, are getting out of date, and are taking rank with oxen roasted whole, and other barbarisms of the middle ages. They are now rarely to be found in the London markets; and when procurable, are very expensive, but not unjustly so, when it is to be remembered that two or three Chickens may have been sacrificed, before ten Capons have been nursed into convalescence. That they may be had in considerable abundance, in China, the south of Europe, and, in a few instances, in our own country, is not to be denied; but wherever they may be found, they cannot be classed otherwise than in the list of uncalled-for luxuries, of unnecessarily unnatural viands, such as diseased goose-liver pies, fish crimped alive, or even those frightful and portentous dishes recalled by Dr. Kitchener, in the "Cook's Oracle." One thing, however, may be harmlessly resuscitated. As

> ———"the toad ugly and venomous,
> Wears yet a precious jewel in his head,"

so the Capon, which, though ugly, is not half venomous enough, if we can be made to believe all we read, carries a valuable gem in the part that is usually antithetically opposed to the head.

Extracting a Crystal from a Capon's Liver.

From a very curious and ancient work on natural history, in my possession, entitled "Ortus Sanitatis," (the Garden of Health,) printed and published at Ausburg, in 1485, by Joan. Cuba, a Dutch botanist, who travelled through Greece and the East, I give above, a fac-simile of a wood engraving, representing the act of extracting a precious stone from the liver of a Capon. "The Allectorius," says the author, "is a stone like a crystal, or limpid water. It is found in the liver of a Capon at the age of three years. It is never larger than a

bean. After this stone is formed in the Capon, he never drinks." The Ortus Sanitatis further informs us that ladies, who wear the jewel Allectorius, are sure to be pleasing in the eyes of their husbands.

Aldrovandi tells us that in Capons, which were more the fashion in his day than they are now, the hackle, the tail-feathers, and the spurs grew to a much greater length than in Cocks.

In England, the art of making Capons, it seems, is no new thing, as the business of which formerly devolved upon females; for old Leonard Mascall, in his minute directions for the operation, uses the feminine gender throughout.

MODE OF MAKING CAPONS AND POULARDES.

If young Cocks are emasculated, so as to deprive them of their natural reproductive feelings, it has a wonderful effect on their condition, rendering them also more easy to fatten. They are never afterwards subject to the natural process of moulting,* and lose their previous strong shrill voice. They become dull and melancholy, are detested by the Hens, buffeted about by the other Cocks, and would soon fall victims to their enmity, were they not removed to perform the remaining business of their lives, "to eat, drink, sleep, and get fat," with all possible expedition. In this state, they are called "Capons."

In a similar manner, young Pullets may be caponized, so as to deprive them of their reproductive powers, and render them more easy to fatten. When thus operated upon, they are usually, though improperly, termed "Hen Capons," but the French word, "*poularde*," is much to be preferred.

In performing the operation, the first thing to be considered is the purchase or procurement of the requisite instruments.

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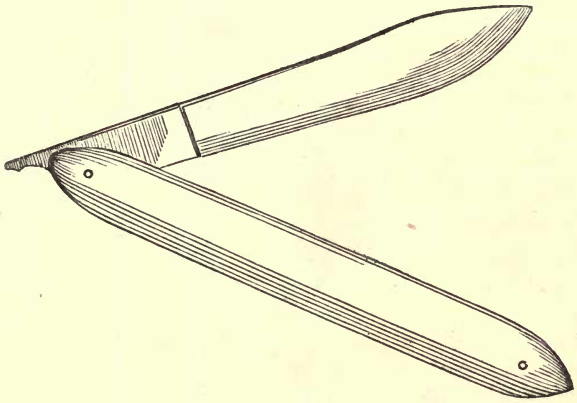
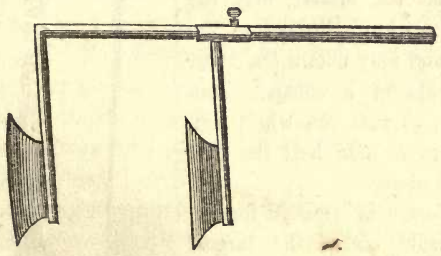
* I am constrained to question this.—*Ed.*

Those most approved of by skilful operators consist of two five or seven-pound weights for confining the Fowls; a *scalpel*,



Scalpel.

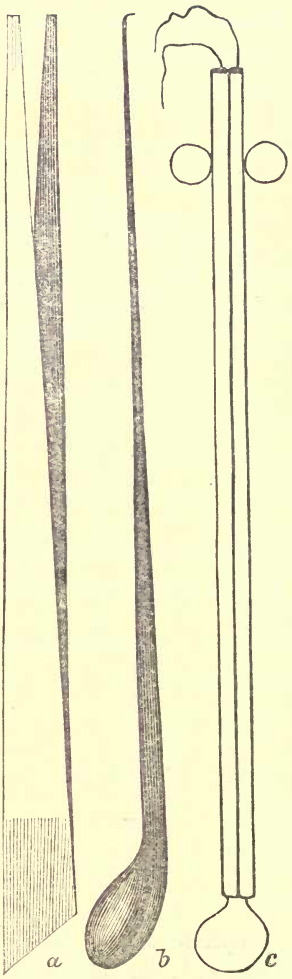
for cutting open the thin skin which envelopes the testicles; a silver *retractor*, for stretching open the wound wide enough



Retractor.

to operate within; a pair of *spring forceps*, denoted by the letter *a*, in the following page, having a sharp, cutting edge, resembling that of a chisel, with a bevel half an inch in its greatest width, for making the incision, and securing the thin

membrane covering the testicles; a *spoon-shaped instrument, b,* with a sharp hook at one end, for pushing and removing the testicles, adjusting the loop, and to assist in tearing open the tender covering of the testicles; and a *double silver canula, c,* for containing the two ends of horse-hair or fibre, constituting the loop.



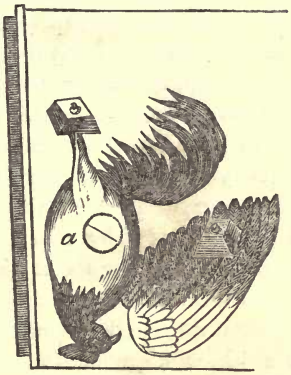
The cost of these instruments in New York, is nearly as follows:—

Scalpel, ...	$0.62½
Silver Retractor, . . .	1.50
Spring Forceps, . . .	0.87½
Spoon, with hook . . .	0.75
Double Silver Canula, .	1.75
	$5.50

Those who are not particularly nice about the matter, may use a cheap penknife instead of the scalpel, and may obtain the other instruments of a cheaper construction, so that the whole will not cost more than half the sum indicated above.

The Cockerels intended for Capons should be of the largest breeds, as the Dorking, the Bucks County, Cochin China, or the great Malay. They may be operated upon at any time after they are a month old, though at an age of from two to three months is considered preferable. If possible, it should be

done before July, as it has been remarked that Capons made later than this, never prove so fine.



Cockerel confined for Caponizing.

All things being in readiness, the first step to be taken is to confine the Fowl to a table or board, by laying him with the left side downward, the wings drawn behind the rump, the legs extended backward, with the upper one furthest drawn out, and the head and neck left perfectly free, as denoted in the above cut. The feathers are next to be plucked from the right side, near the hip joint, on a line with, and between, the joint of the shoulder, as at *a*. The space uncovered, may be from an inch to an inch and a half in diameter, according to the size of the bird.

After drawing the skin off the part, backward, so that, when left to itself when the operation is completed, it will cover the wound in the flesh, make an incision with the bevel-edged knife, at the end of the forceps, between the last two ribs, commencing about an inch from the back-bone, and extending it obliquely downward, from an inch to an inch and a half, just cutting deep enough to separate the ribs, taking due care not to wound the intestines.

Then, adjust and apply the retractor by means of the small thumb screw, and stretch apart the wound sufficiently wide to afford room to examine the parts to be removed.

Then, with the scalpel or a sharp penknife, carefully cut open the skin, or membrane, covering the intestines, which, if not sufficiently drawn up, in consequence of the previous confinement, may be pushed forward towards the breast-bone, by means of the bowl of the spoon-shaped instrument, or, what would answer equally well, with the handle of a teaspoon.

As the testicles are exposed to view, they will be found to be connected with the back and sides, by means of a thin membrane, or skin, which passes over them. This tender covering must then be seized with the forceps, and torn open with the sharp-pointed hook at the small end of the spoon-shaped instrument, after which, with the left hand, introduce the bowl of the spoon under the lower, or left testicle, which is generally a little nearer to the rump than the right one.

Then take the double canula, adjust the hair loop, and, with the right hand, pass the loop over the small hooked end of the spoon, running it down under the bowl of the spoon containing the testicle, so as to bring the loop to act upon the parts which connects the testicle to the back. Then, by drawing the ends of the hair-loop backward and forward, and at the same time pushing the lower end of the tube, or canula, towards the rump of the Fowl, the cord, or fastening of the testicle is severed.

A similar process is then to be repeated with the uppermost or right testicle, after which, any remains of the testicles, together with the blood at, or around, the bottom of the wound, must be scooped out with the bowl of the spoon. The reason for cutting out the left testicle first, is to prevent the blood, which may issue, from covering the one remaining, and rendering it more difficult to be seen.

After the preceding operation is performed, which, if skilfully done, occupies only a few minutes, the retractor is taken

out, the skin of the Fowl drawn over the wound, which may be covered with the feathers that were plucked off at the commencement, and the Chicken may be released. As soon as it is liberated, it will eagerly partake of grain or other food, and in a few days be restored to health.

In some Fowls, the fore part of the thigh covers the two hindmost ribs, in which case, care must be observed to draw the fleshy part of the thigh well back, to prevent it from being cut; as otherwise, the operation to be performed might be liable to lame the Fowl, or even cause its death.

For loops, nothing answers better than the fibre of a cocoanut husk, which is rough, and readily separates the testicles by sawing. The next best substance for the purpose, is the hair of a horse's mane or tail.

The usual method of making *Poulardes*, in France, is, to extirpate the egg cluster, or *ovaria*, in a similar manner as the testicles are extracted from the young Cocks; but it has been shown by Mr. Yarrell, in the "Transactions of the Royal Society," that it is quite sufficient merely to cut across the Egg tube, or oviduct, with a sharp knife. Poulardes may otherwise be treated in the same manner as the Capons.

Capons are fattened precisely in the same manner as other Fowls, by keeping them cooped up in a quiet, dark place, and cramming, or otherwise feeding them abundantly.

CHAPTER XXI.

PEA FOWL.

In presenting this splendid Bird to the notice of the reader, I have only to say, that Mr. Croome has faithfully and beautifully portrayed it, and that Mr. Dixon admirably describes it. After speaking of the perfection of its combination of grace and beauty, he says:—

The causes which disincline many persons from indulging themselves with the daily spectacle of this inapproachable model of beauty, are, in the first place, the depredations that it commits upon gardens. For this, there is no help. The dislike which these birds have to enter a fowl-house, and their decided determination to roost on trees or lofty buildings, prevents our exercising a control which should restrain them from mischief, till an eye can be kept upon their movements. At the first dawn, or at the most unsuspected moments, they will steal off to their work of plunder. With great conveniences for keeping them in their proper places, I was compelled to choose between the alternative of banishing a very perfect and familiar pair, or of depriving my children of strawberries. A friend, who has been well acquainted with their habits for years, informs me, as the result of his experience, that their cunning is such, that, if frequently driven away from the garden at any particular hour of the day or evening, after a cer-

JAVANESE PEA FOWL.

CALIFORNIA

tain time they will never be found there at that special hour, but will invariably make their inroads at daybreak. As a last resource, I have tried ejecting them with every mark of scorn and insult, such as harsh words, the cracking of whips, and the throwing of harmless brooms. Most domestic animals, and I believe many birds, are sensitive of disrespectful usage, and would feel as a severe rebuke, the manner in which they were thus turned out. But Pea Fowls are incorrigible marauders.

A mansion, therefore, whose fruit and vegetable garden is at a distance, is almost the only place where they can be kept without daily vexation. The injury they do to flowers is comparatively trifling; though, like the Guinea Fowl, they are great eaters of buds, cutting them out from the axillæ of leaves as cleanly as a surgeon's dissecting-knife would. They must also have a dusting-hole, which is large and unsightly; but this can be provided for them in some out-of-the-way nook; and, by feeding and encouragement, they will soon be taught to dispose themselves into a *tableau vivant*, at whatever point of view the tasteful eye may deem desirable. No one with a very limited range, should attempt to keep them at all, unless confined in an aviary. But, where they *can* be kept at large, they should be collected in considerable numbers, that their dazzling effect may be as impressive as possible. Many gardenless castles and country-houses on the Continent would lose their semi-barbarous and semi-ruinous appearance, by employing these birds as an embellishment. For they are not less pleasing to the eye than the Stork, which is so much encouraged; and they would render in great measure the same services, namely, the destruction of small reptiles, with the advantage of remaining at home all the year round. Willughby gives a ludicrous quotation from Johannes Faber, in reference to the serpent-eating propensities of the Pea Fowl, which is too coarse, both in idea and expression, for modern republication,

though not otherwise objectionable. Something of the kind is popularly believed, perhaps not utterly without truth, respecting Herons and Eels. But to these Continental residences it should be understood that no vineyard be at hand. The greenness and sourness of the grapes, which caused the Fox to refrain, would be but a weak argument with them. A Peacock, that was suffered to go at large in the dirty back lanes of a town, struck me as being more out of its place than any I had ever seen.

A charming instance of the ornamental use of Pea Fowl was to be seen a dozen years ago, (and perhaps may still,) at the Palace of Caserta, near Naples. There is an English garden,* admirably laid out, on a slope commanding the most enchanting views In one part is a small piece of water, in the midst of which is an island planted with trees and shrubs, and inhabited by numerous Pea Fowl.† Of course, they must be pinioned, to prevent their escape. My own birds had no hesitation in flying to and fro, in order to visit an island similarly situated, and which is cultivated as a kitchen garden. People may talk about Humming-birds, Sun-birds, Birds of Paradise,

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* The gravel for some of the walks was brought from Kensington.

† Therefore this genus of Fowls is most easily kept in the small woody islands which lie before Italy. For since they can neither fly very high nor for a long distance, and since there is no fear of loss by theives or vermin, they can safely go at large without a keeper, and find themselves the greater part of their food. The Peahens, indeed, as if freed from slavery, will, of their own accord feed their young with greater care; nor should their keeper do more than call the flock toward the farm at a certain time of the day by a known signal, and throw them a little barley as they assemble, so that the birds may not be famished, and their number may be told. But the opportunity of using this kind of landed property is rare."—*Columella*, lib. viii. cap. xi. This is very like our pheasantries in alder and osier carrs. The whole chapter is curious and worth reading.

or any other feathered beauty, but nothing can equal the magnificence of a Peacock in full flight, sweeping across a sheet of water, or glancing in the sunbeams among the topmost branches of a fir-tree.

A second objection to them is their alleged wanton destructiveness towards the young of other Poultry,* a propensity respecting which I have heard and read† such contradictory statements, that they can only be reconciled by the hypothesis that the Peacock becomes more cruel as he advances in life, and also that males of this species vary in disposition; that, as the human race has produced examples of such diverse tempers, so the Peacock family includes individuals of different degrees of blood-thirstiness. My own bird, three years old, was perfectly inoffensive; others have been mentioned to me equally pacific. On the other hand, the list of murders undoubtedly committed is long and heavy. The friend before mentioned says, "I have known them kill from twelve to twenty ducklings, say from a week to a fortnight old, during one day; but if they came across a brood of young Chicks or Ducklings a few days old, they would destroy the whole of them." And yet, in the face of all this condemnatory evidence,

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* Columella gives a fanciful reason for keeping Hens that have families of Chickens from coming near Peahens that have broods, which relieves the latter at least from all blame. "Authors are sufficiently agreed that other Hens, which are rearing young of their own kind, ought not to feed in the same place. For after they have seen the brood of the Pea Fowl, they cease to cherish their own, and desert them while still immature, clearly hating them, because neither in size nor beauty are they comparable to the Peacock."—Book vii., chap. xi.

† See the "Penny Cyclopedia," article Pavonidæ: "I have never kept Pea Fowl, nor seen Chicks just hatched, but have witnessed the abominable cruelty of the father of the family in knocking a whole brood of them on the head, when nearly a quarter grown."—*H. H.*

we now and then see a favourite bird, with neck of lapis lazuli, back of emerald, wings of tortoise-shell, and tail outshining the rainbow, in some old-fashioned farm-yard, the pet of his mistress, who is perhaps the most successful Poultry-woman in the neighbourhood, and whose stock shows no sign of any murderous thinning. The Peahen, who, when she has Eggs or young, seems really a more guilty party, is not in general even suspected. So true is it that one man may steal a horse, while another must not look over the hedge.

The Hen does not lay till her third summer; but she then seems to have an instinctive fear of her mate, manifested by the secresy with which she selects the place for her nest; nor, if the Eggs are disturbed, will she go there again. She lays from four or five to seven. If these are taken, she will frequently lay a second time during the summer, and the plan is to be recommended to those who are anxious to increase their stock. She sits from twenty-seven to twenty-nine days. A common Hen will hatch and rear the young; but the same objection lies against her performing that office, except in very fine long summers, for the Pea Fowl as for Turkeys; namely, that the poults require to be brooded longer than the Hen is able convenienty to do so. A Turkey will prove a much better foster-mother in every respect. The Peahen should of course be permitted to take charge of one set of Eggs. Even without such assistance she will be tolerably successful. Those students of Poultry who carefully read the "Guinea Fowl" and the "Turkey," and industriously carry the instructions there given into practice, will have no difficulty in rearing Pea Chicks. The same wise provision of nature to be noticed in the Guinea Fowl, is evinced in a still greater degree in the little Pea Chicks. Their native jungle, tall, dense, sometimes impervious, swarming with reptile, quadruped, and even insect enemies, would be a most dangerous habitation for a little tender thing that could run and

squat merely. Accordingly they escape from the Egg with their quill-feathers very highly developed. In three days they will fly up and perch upon any thing three feet high; in a fortnight they will roost on trees or the tops of sheds, and at a month or six weeks you would see them on the ridge of a barn, if there were any intermediate low stables or other building that would help them to mount from one to the other. It must be a clever snake that would get at the cunning little rogues when they were once perched on the feathery branch of a bamboo. . . .

There are two varieties of the common Pea Fowl, namely, the Pied and the White. The first has irregular patches of white about it, like the Pied Guinea Fowl, the remainder of the plumage resembling the original sort. The White have the ocellated spots on the tail faintly visible in certain lights. These last are tender, and are much prized by those who prefer rarity to real beauty. They are occasionally produced by birds of the common kind, in cases where no intercourse with other White birds can have taken place. In one instance, in the same brood, whose parents were both of the usual colours, there were two of the common sort, and one White Cock and one White Hen. The old notion respecting them, which has given rise to serious theoretical errors and to many false inferences, is, that they originated in the north, in Norway or Sweden; the climate in which Ptarmigan, Snow Buntings, Alpine Hares, &c., annually put on a white livery, having made *them permanently* white. From some minds this false idea has yet to be eradicated; it was the foundation of several of Buffon's boldest speculations respecting the influence of climate on the forms of animals, leading him to hazard the assertion, among others, that the Silver Pheasant is only the common Pheasant changed to a lighter hue by migration to a more northerly region, while he forgot that the Silver and the Common Pheasant are both natives of the same

districts of China and India, and that Aldrovandi, from whom he gleaned the error, instantly refutes it, by stating that White Pea Fowl are frequently hatched in Madeira and the neighbouring islands. Temminck has well discussed the *Paon Blanc*, in his *Hist. Nat. des Gallinacés*, tom. ii.

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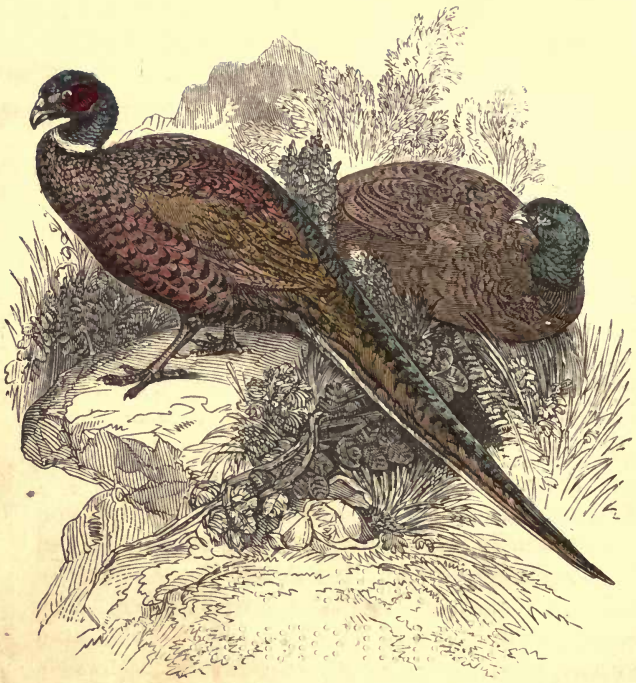

THE RING-NECKED PHEASANT

CHAPTER XXII.

THE RING-NECKED PHEASANT.

THE Phasianus Torquatus, or Ring-necked Pheasant, of which the artist has given such a life-like portrait from nature, is but a variety of the common Pheasant. It is, perhaps, a trifle larger than the Brown Pheasant, with which it is associated in almost every preserve in England. The Cock should weigh about three pounds.

This genus may generally be characterized by a strong bill, the upper part of which is convex, and naked at the base; the nostrils are lateral and covered with a cartilaginous scale. "The head is clothed with feathers, but the region of the eyes, for a considerable space, is covered with a naked verucose skin, generally of a bright vermilion. The wings are short, but firm and compact. The tail is remarkably long, and generally wedge-shaped. The feet have the anterior toes united by a membrane to the first joint. The hind-toe is articulated upon the tarsus, which, in the male, is furnished with a strong conical, sharp spur. The plumage of the male is generally of the most brilliant tints." In the natural state, they live on fruits and roots, and the larger seeds; they are very active on the ground, and though their short wings prevent them from taking a long and sustained flight, their power is sufficient to carry them away from ordinary dangers.

It is now generally admitted that the Pheasant was originally

introduced in Europe from the banks of the Phasis, (near the Rioni,) a river in Chalchis, in Asia Minor. Of the time of its introduction we are not certain. As early as the year 1299, it is mentioned (Echard's History) as worth four pence; and two hundred of them made part of the great feast of the Archbishop Neville, about the middle of the fifteenth century.

The markings and splendid hues of the plumage of the male bird are generally known, and so well set forth by the artist, that any detailed description will be unnecessary.

The ringed variety chiefly inhabits the forests of China, where the common kind is also abundant; but in this state they never breed together. The Eggs of the former also differ; they are of a pale bluish green, marked with small blotches of a deeper tint, while those of the latter variety are of an olive-white, and without any spots.

Of the habits of these birds, in a state of nature, we know but little, and yet have no reason to doubt their similarity to those exhibited in their present half domestic state in Europe and this country.

As they are now found in preserves, woods with a thick under-growth of brush, brambles, long grass, &c., interspersed with open glades, which some little stream refreshes and the sun enlivens, are their delight during the day, and from which they run, morning and evening, to the open skirts, where some favourite food abounds. It is in their way to such feeding grounds, that they are so easily secured by unscrupulous persons; for, never taking flight, unless disturbed, they run and thread their way through these tangled brakes, and leave passages which are easily distinguished by the practised eye of the poacher. During the winter, the Pheasant goes regularly to roost; but, in the summer, and when moulting, they do not tree, but squat among the long grass, offering themselves, in this way, an easy prey to another class of enemies, as Polecats, Foxes, &c. The males, in general, associate among themselves

during the winter, and separate from the females. They come together again about the first of March, when the male assumes an altered appearance; the scarlet of his cheeks, and around his eyes, acquires additional depth of colour, he walks with a more measured step, with his wings let down, and with his tail carried in a more erect position. Being polygamous, he now takes possession of a certain *beat*, from which he drives every male intruder, and commences his crowing, attended with a peculiar clapping of the wings, which answers as the note of invitation to the other sex, as well as of defiance to his own.

As previously stated, the food of the Pheasant is tender roots, insects with their larvæ—as the autumn advances, the ripening grains of all kinds are abundant, and the wild fruits and berries, which a kind Providence has everywhere provided, render this their time of feasting. As winter approaches, they are reduced to less various fare, and resort to the fallow and turnip-fields, in search of roots, &c. In well-kept preserves, during this season, they are always regularly fed, and know the feeding-hour and call of the keeper correctly, and by this means they are prevented from straying. The most successful and favourite food, at these times, is peas or grain.

Although it is rather difficult to effect a cross between the Pheasant and our Domestic Fowl, it has nevertheless been done; but, beyond a first cross, the thing is generally regarded as impracticable. Poultry have been kept on the borders of a wood abounding with Pheasants, and occasionally a few half-bred birds are procured. Sir William Jardine had a specimen of the cross in his possession, exhibiting all the mixed characters in perfection. M. Temminck also records a solitary instance of a mule between the female common Pheasant and the male Golden-Pheasant, which presented a curious but splendid mixture; all his endeavours, however, to procure a second

specimen were ineffectual. The common Pheasant breeds also freely with the Ring-necked bird, and the offspring is productive; this by some is regarded as a proof that these two birds are identical.

The following paragraph, which I quote from Mr. Nolan, of Dublin, will be interesting to those who desire to try their skill in breeding and rearing this beautiful bird. He says:—

"The Pheasant is not only beautiful to the eye, but most delicate when served to the table. Its flesh is considered the greatest dainty. When the old physicians spoke of the wholesomeness of any viands, they made their comparison with the flesh of the Pheasant. No matter with what care they have been bred or propagated, they disdain the protection of man, and shelter in the thickest covers and remotest forests. All others of the Domestic Fowl submit to the protection of man; but the Pheasant never has, preferring the scanty produce of acorns and berries to the abundant supply of a farm-yard. The Hen Pheasant, in a wild state, hatches and brings up her brood with patience, vigilance, and courage; but when kept tame, she never sits well. A substitute must be found in the clean-legged Bantam, the larger Fowl being too heavy for the Chicks. Her time of laying is about the middle of April, and, if in an aviary, the Eggs should be immediately removed, and placed in dry bran or chaff, until you wish to set them. They are about twenty-four days coming out. After the young ones appear, they are not to be fed for twenty-four hours, after which give them hard-boiled Egg, chopped fine, and mixed with oatmeal, ant-mould, cheese, curd, lettuce cut fine, white flour wetted with sweet milk, bread crumbs, bread and milk, with very limited drink. Be particular to preserve them from cold and moisture. You will have to confine the Hen, so as to prevent her eating their food; and you will have to provide them with maggots. In the neighbourhood of Paris, where they rear quantities of young Fowl, for the market, they prepare what

they call a *vermineer*, by digging a hole in a dry, sandy spot, in which they place a piece of flesh, which soon gets into maggots, with which they feed the young birds. My own *vermineer* is of much simpler and economic construction. I have an earthen pan, about two feet deep, and one foot diameter, into which I put some bran; on this I place a piece of liver or carrion. I cover it with a common glass cap, and place it in the sun. The flesh soon gets fly-blown, and speedily creates quantities of maggots, and, with a long-handled spoon, I have them thrown to the young birds. They should not get more than one feed of those in the day. The more varied their food, and the more frequently renewed, the better. Fresh, and a little at a time. The green leaves of barley are excellent. At three months old, feed them on barley, with a little wheat, boiled carrots, or potatoes, mixed with bread-crumbs. Give a small portion of boiled rice during the moult. If they should get the roup, give them fresh curd every day. To make alum curd, take new milk, as much as your young birds require, and boil it with a lump of alum, so as not to make the curd hard and tough, but custard-like. A little of this curd and ant's eggs, should be given to them twice a day, in addition to their other food. Keep their vessels clean; and, if the disease still continue, give them, every second day, a small dose of garlic in a little fresh butter. They are subject to be vent-bound, which, if not attended to, will kill them. The remedy is, with a sharp scissors cut close the down or feathers about the vent, and anoint it with sweet-oil, and be attentive that it be kept clean, otherwise you cannot rear them; but, in handling them, be particularly cautious that you do it with the greatest delicacy, as the least rough handling will kill them. If they have a scouring, the alum curd will check it.

There is no difficulty in breeding the common Pheasant in a wild state; but to keep them in an aviary, you will have to

get a wire-trellis in front, sufficiently close to prevent the sparrows and other birds robbing them of their food. The saving of the food will very soon compensate you for the wire-work, and insure your Pheasants being fed. At the top, I would prefer close net-work of moderate-sized cord, well painted. The reason is, if the birds get fluttered, they fly straight up, and, by a dash against a hard substance, they frequently fall dead, but by coming in contact with the net, they receive no injury. Part of the aviary should be shedded, to protect them from the inclemency of the weather; and I would recommend a retiring-place for the Hens to lay in, and perches of about one inch diameter. I would advise the retiring-place to be laid down with clean straw, but would prefer fine sand for their walking-place. Wheat and barley are their best food, with occasionally vegetable matter, lettuce, turnip-tops, cabbages, &c. One Cock is sufficient for three or four Hens.

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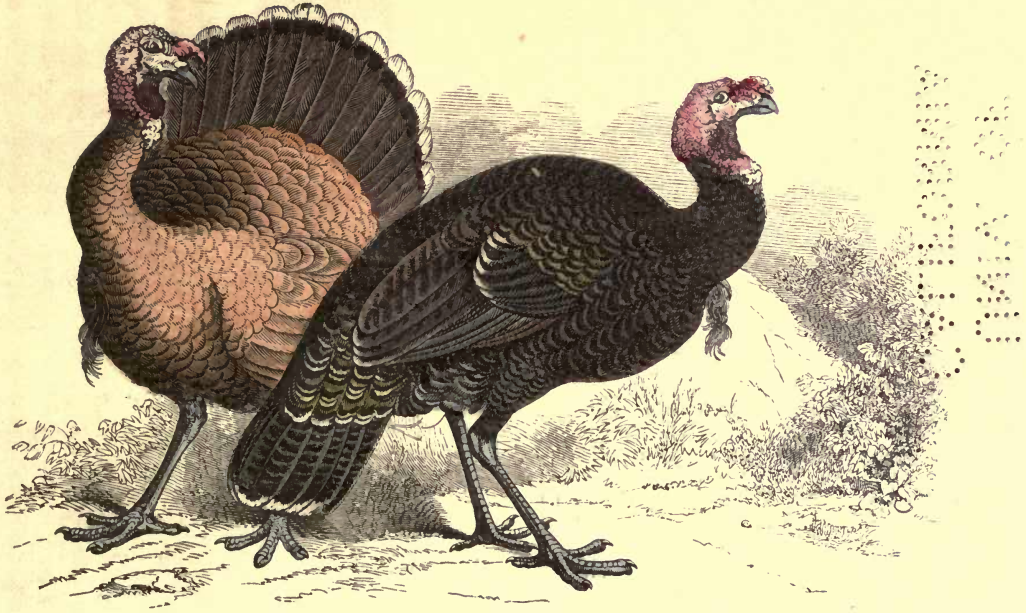

DOMESTIC TURKEYS.

CHAPTER XXIII.

THE TURKEY.

This is one of those Fowls, that, as yet, are found in the wild, as well as in the domestic state. How long this may be, is hard to say; probably, not long; for as civilization and improvements advance in North America, the country to which they belong, they will, doubtless, share the fate of the Dodo and Bustard, and be known only in history, or by the specimens to be seen in the barn-yard.

As I know comparatively little of this Fowl from experience in rearing it, I have sought information of those who "know all about it" practically; and none more so than my friend, D. Taggart, Esq., to whom I feel much indebted, for his valuable correspondence on "Ornamental and Domestic Poultry."

In answer to some inquiries, in relation to Fowls generally, he says, "You have not asked my views on Turkeys, but what little I know, I may as well impart. I raised two broods, last summer, (1850,) by way of experiment. The first lot, to the number of fifteen, were hatched in June, under Hens. With these, I was very successful, having lost but one. The Gobblers now weigh, (November 29th, 1850,) eleven or twelve pounds, the Hens seven or eight pounds: I was very careful of them, feeding them on the curds of milk, and waste bread, soaked in milk, until they were four or five weeks old. After that, I was not so particular. I kept them in the garden, and by the time

the Bustard breed and the Dutch copper-coloured,) which, however, is as much cultivated in Norfolk as the old local stock, and birds of which kind often pass for true Norfolks, because they have been procured from that county. The real Norfolk Turkey is more hardy, but less ornamental than the others, and of smaller size. It is entirely black, except the red skin about the head, and a brownish tip to the feathers of the tail and some of those of the back. This gives the bird a rusty appearance, like an old piece of well-worn cotton velvet. The Cambridge sort, when black, have a beautifully shining bluish tinge, like a well-polished boot. The Chicks of the Norfolks are black, with occasionally white patches about the head; those of the Cambridge variety are mottled all over with brownish gray, and are of taller and slenderer proportions. The plumage of the Cambridge breed varies very much; sometimes it is entirely made up of shades of reddish brown and gray, when it is called the Bustard breed; sometimes of gray, black, and white, but frequently it approaches very nearly to what we see figured as the wild bird. Owing to the early age at which our birds are mostly killed, the tuft on the breast of the Hen is seldom so conspicuous as is represented in the Hen of the Wild Turkey, in the "Naturalist's Library," copied from Audubon.

The pure White Turkeys are very elegant creatures, and though the most tender of all to rear, are not so in any thing like the same degree as the White Pea Fowl. It is well known that most birds, wild as well as tame, occasionally produce perfectly white individuals, of more delicate constitution than their parents. We cannot doubt that the selection and pairing of such, is the way in which the breed of White Turkeys has been established and kept up. However, with all care they will now and then produce speckled birds, and so show a tendency to return to the normal plumage. It is remarkable, that in specimens which are else snow-white, the tuft on the

breast remains coal-black, looking, in the Hens, like a tail of ermine, and so showing as a great ornament. The head and caruncles on the neck of the male are, when excited, of the same blue and scarlet hues. Thus the creature, with small portions of black, blue, and scarlet, relieving his snowy and trembling flakes of plumage, is truly beautiful; and some few farmers keep them, in spite of the disadvantages attending them. A merit is, that they dress most temptingly white for market. But they are unsuited for miry, smoky, or clayey situations, and show and thrive best when they have a range of clean, short pasture, on a light or chalky subsoil.

The American Turkeys are merely a recent importation from the New World, of birds whose progenitors were not many generations back in a state of nature; they are, in short, fresh blood from the primæval forests. The most striking point in which they differ from the best plumaged of the Cambridge breed, is the extreme brilliancy of their changeable metallic tints. In all the coloured Turkeys these glancing tints depend much upon condition. An experienced eye will at once see whether Poultry is in good or bad condition, from the look of the plumage, just as a groom would pronounce upon the smooth or staring coat of his horse. But the American Turkeys are ever pre-eminent in this respect. They are also more hardy, lively, game-like, and self-dependent, searching for their food like Pheasants. Those who have kept them, pronounce them to be the most profitable and best-tasted breed, as well as the handsomest. The metallic hues of their back feathers, when seen in the sunshine, are quite dazzling. The Rev. W. D. F., to whom we are indebted for admirable specimens, says, "I have always believed these birds to be descendants of the true wild breed brought immediately from America. The owners of them have constantly laid claim to this; in proof whereof, I may mention an anecdote which occurred some years since. At that time Earl Powys was

reputed to be the only possessor of these; and I believe he imported them. On one occasion, the earl presented George IV. with a fine black charger, which was graciously received; but the king is said to have remarked to those in his confidence, that a horse was of no use to him, as he could not ride, but that Earl Powys did possess something which he should much value. This was reported to his lordship, and after some difficulty it was found out that a pair of American Turkeys would be most acceptable, and they were sent. I merely mention this to show that their wild descent was believed in high quarters. The late Lord Leicester was also said to possess the wild breed; and I well remember his telling my father they were so, and remarking that they got their food so much more readily than the tame kinds. I originally had my breed from Lord Leicester, and have since crossed them with Earl Powys's. The two breeds differ in the latter having the wing-feathers, or rather quills, barred with white, while Lord Leicester's are wholly dark. Both Cocks and Hens are beautifully metallic, far more so than any breed that I know. The shape of the Hens is also more elongated, and there is a sprightliness about the head, which is also better shaped. Audubon's plate of the Turkey strongly reminds me of my own. Much of this may be fancy; yet I have not a doubt upon the subject, but believe that they are genuine wild American Turkeys. They also invariably lay later than the common breeds."

A great point in this account is, that the birds are descended from recently wild ancestors, and have not merely been lately brought from America. For *this* query suggests itself to our mind: Are the majority of the American farm-yard Turkeys the progeny of individuals domesticated from the forest; or, is it not possible that some at least of the colonists may have taken out with them tame Turkeys from England as stock, and so founded a farm-yard race for parts

of America? Such a plan would most likely be less troublesome than the task of taming fresh-caught birds or their chicks. If this has ever been the case, it will be a curious return for us to have made, of an enslaved race, to the continent to which we owe the original existence of the species among us. Some slight notice of the Crested Turkey may be expected in these pages, as Temminck *(Pigeons et Gallinacés*, vol. ii. p. 387,) says that it is "only a variety or sport of nature in the species; it only differs in that it has a crest of feathers, sometimes black, sometimes white; and these Crested Turkeys are sufficiently rare. Mademoiselle Backer formerly kept, in her magnificent menagerie, near the Hague, a flock of Turkeys of a beautiful Isabelle yellow, approaching to chestnut; they all had an ample crest of pure white." Albin, publishing in 1738, gives (vol. ii. p. 30) a coloured print of the white-crested Turkey, and says, "This bird I saw in the possession of Henry Cornellyson, Esq., beyond Chelmsford, in Essex: it was of the bigness of the common Turkies, having a beautiful large white copple on its crown or top of the head." We do not see such freaks of nature now; nor does a Turkey's head, with its movable and erectable skin, look a likely place for a plume of feathers to start from. Such a *lusus* has never occurred in the great Turkey-breeding counties of Norfolk, Suffolk, and Cambridgeshire, and the appearance of the monster would be sure to be observed there, if it took place. We therefore may suspect the Crested Turkey to be, like the Crested Guinea Fowl, a distinct species, and that it has failed to propagate, and so is no longer to be seen among us. The suspicion is confirmed by finding in "Wild Life in the Interior of Central America, by George Byam, 43d Light Infantry," at p. 154, and the following, an account of the discovery of Crested Turkeys in a state of nature, which is too long to extract. But the subject is most perplexing, and interesting from its very mystery. A solution may possibly be effected

by the noble efforts which the Earl of Derby is unceasingly making to further the advance of zoological knowledge.

One reason why the Turkeys, seen in our Poultry yards, do not vie in splendour of plumage with their untamed brethren, is that we do not let them live long enough. For the same cause we seldom witness the thorough development of their temper and disposition. A creature that does not attain its full growth till its fifth or sixth year, we kill at latest in the second, to the evident deterioration of our stock. But let three or four well-selected Cambridge Turkeys, or the before-mentioned Americans, be retained to their really adult state, and well fed meanwhile, and they will quite recompense their keeper by their beauty in full plumage, by their glancing hues of gilded green and purple, their lovely shades of brown, bronze, and black, and the pearly lustre that radiates from their polished feathers. In default of wild specimens, birds like these are sought to complete collections of stuffed birds.

The demand for such large birds among the Fowl-dealers, and the temptation to fat them before they arrive at this stage, are so great, that few farmers' wives can resist sending their eighteen or twenty pound "stag"* to market, while a young Cock of the year, they think, will answer every purpose next spring as well. Some even deem it an extravagance to keep a Turkey Cock at all, if they have not more than two Hens, which they would send on a visit of a day or two to a neighbour who has a male bird. A case is recorded in which such a visit, made in the July or August of one year, was available for the Eggs of the succeeding April. The time

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* In Norfolk, Turkey Cocks are called Stags from their second year upwards. A bird of the same year weighing, when dressed at Christmas, 16 or 17 lbs., is unusual and considered very good. The extra weighty birds shown by the London poulterers are of a corresponding age.

when the Hens require this change of air in spring, may be known by their lying down on the ground, as if they were unwell; doing so immediately again, if taken up and made to walk on, which apparent languor is accompanied by a lack-a-daisical love-sick expression of countenance. One Christmas we ate or gave away all our Turkeys, (including a magnificent Stag, whose image haunts us still,) except a single Hen. The above-mentioned plan was necessarily adopted; and the result was, from eleven Eggs, eight Chicks so strong as almost to rear themselves. The same system has been occasionally tried with Fowls, and has been found not to answer.

When the Hen has once selected a spot for her nest, she will continue to lay there till the time of incubation, so that the Eggs may be brought home from day to day, there being no need of a nest Egg, as with the common Fowl. She will lay from fifteen to twenty Eggs, more or less. If there are any dead leaves or dry grass at hand, she will cover her Eggs with these; but if not, she will take no trouble to collect them from a distance. Her determination to sit, will be known by her constantly remaining on the nest, though empty; and as it is seldom in a position sufficiently secure against the weather or pilferers, a nest should be prepared for her, by placing some straw, with her Eggs, on the floor of a convenient out-house. She should then be brought home, and gently and kindly placed upon it. It is a most pleasing sight to witness the satisfaction with which the bird takes to her long-lost Eggs, turning them about, placing them with her bill in the most suitable positions, packing the straw tightly around and under them, and finally sinking upon them with the quiet joy of anticipated maternity.

In the south of England, from fifteen to twenty Eggs may be allowed; but with the Norfolk variety, which is the smallest, and in a northern or eastern county, it is found that moderation succeeds better than over-greediness of Chicks. In this case

thirteen Eggs are enough to give her; a large Hen might cover more: but a few strong, well-hatched Chicks are better than a large brood of weaklings that have been delayed in the shell, perhaps twelve hours over the time, from insufficient warmth. At the end of a week, it is usual to add two or three Fowls' Eggs, "to teach the young Turkeys to peck." The plan is not a bad one; the activity of the Chickens does stir up some emulation in their larger brethren; the Eggs take up but little room in the nest; and, at the end of the summer, you have two or three very fine Fowls, all the plumper for the extra diet they have shared with the little Turkeys.

Some ladies believe it necessary to turn the Eggs once a day; but the Hen does that herself many times a day. If the Eggs are marked, and you notice their position when she leaves the nest, you will never find them arranged in the same order. A person who obtained ninety-nine Chicks from an hundred Eggs, took the great trouble to turn each Egg every day with her own hand, during the whole time of incubation. The result *appears* favourable; but, in fact, only amounts to this, that such officiousness did no harm with a good, patient, quiet creature like the sitting Turkey, but it would probably have worried and annoyed any other bird into addling her whole clutch. We will at once reject, as utterly absurd and unnatural, all directions to immerse or "try" the Eggs in a pail of water, hot or cold.

In four weeks the little birds will be hatched; and then, how are they to be reared? Some books tell you to plunge them in cold water, to strengthen them: those that survive will certainly be hardy birds.* Others say, "Make them

* Sir J. S. Sebright exposes the folly of endeavouring to make young creatures robust by undue exposure to cold and hardship, an experiment which some men and women are cruel enough to try upon their own offspring. Air and exercise increase the strength of any

swallow a whole pepper-corn;" which is as if we were to cram a London pippin down the throat of a new-born babe. Others again say, "Give them a little ale, beer, or wine." We know, unhappily, that some mothers are wicked enough to give their infants gin, and we know the consequences. Not a few advise that they be taken away, and kept in a basket by the fire-side, wrapped in flannel, for eight or ten hours. Why take them away from her? She has undergone no loss, nor pain, nor labour: she wants no rest, having had too much of that already. All she requires is the permission to indulge undisturbed the natural exercise of her own affectionate instinct.

Give them nothing; do nothing to them: let them be in the nest under the shelter of their mother's wings, at least eight or ten hours; if hatched in the afternoon, till the following morning. Then place her on the grass, in the sun, under a roomy coop. If the weather be fine, she may be stationed where you choose, by a long piece of flannel-list tied round one leg, and fastened to a stump or a stone. But the boarded coop saves her ever-watchful anxiety from the dread

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growing animal, but cold and hunger only dwarf and weaken. We see robust children in extremely poor families, not because they are poor, but because, if they were not robust, they would not be alive at all. Sir John, in his "Treatise on Improving the Breeds of Domestic Animals," pp. 15, 16, says, "In cold and barren countries, no animals can live to the age of maturity but those that have strong constitutions; the weak and the unhealthy do not live to propagate their infirmities, as is too often the case with our domestic animals. To this I attribute the peculiar hardiness of the horses, cattle, and sheep, bred in mountainous countries, more than to their having been inured to the severity of the climate; for our domestic animals do not become more hardy by being exposed, when young, to cold and hunger: animals so treated will not, when arrived at the age of maturity, endure so much hardship as those who have been better kept in their infant state."

of enemies above and behind—the carrion-crow, the hawk, the rat, the weasel; and also protects herself—she will protect her young—from the sudden showers of summer. Offer at first a few crumbs of bread: the little ones, for some hours, will be in no hurry to eat; but when they do begin, supply them constantly and abundantly with chopped egg, shreds of meat and fat, curd, boiled rice mixed with cress, lettuce, and the green of onions. Melted mutton-suet poured over barley-meal, and cut up when cold; also bullock's liver boiled and minced, are excellent things. Barley-meal, mixed thick and stiff with water or milk, nettle-tops, leeks, goose-grass, or cleavers, and many other things, might be added to the list; but it is probable that a few of these may now and then be refused by some fanciful little rogues. I think I have observed that little Turkeys do not like their food to be minced much smaller than they can swallow it; indolently preferring to make a meal at three or four mouthfuls than to trouble themselves with the incessant pecking and scratching in which Chickens so much delight. But, at any rate, the quantity consumed costs nothing; the attention to supply it is every thing.

Young Turkeys are sometimes attacked by fasciolæ, or worms in the trachea, but not so often as Chickens. Cramp is the most fatal to them, particularly in bad weather. A few pieces of board, laid under and about the coop, are useful: sometimes rubbing the legs with spirit will bring the circulation back again.

The time when the Turkey Hen may be allowed full liberty with her brood, depends so much on season, situation, &c., that it must be left to the exercise of the keeper's judgment. Some, whose opinion is worthy of attention, think that if the young are thriving, the sooner the old ones are out with them the better, after the first ten days or so. A safer rule may be fixed at the season called "shooting the red," a "disease," as some compilers are pleased to term it: being about as much

a disease as when the eldest son of the Turkey's master and mistress shoots his beard. When young Turkeys approach the size of a Partridge, or before, the granular fleshy excrescences on the head and neck begin to appear; soon after, the whole plumage, particularly the tail-feathers start into rapid growth, and the "disease" is only to be counteracted by liberal nourishment. If let loose at this time they will obtain much by foraging, and still be thankful for all you choose to give them. Caraway-seeds, as a tonic, are a great secret with some professional people. They will doubtless, be beneficial, if added to plenty of barley, boiled potatoes, chopped vegetables, and refuse meat. And now is the time that Turkeys begin to be troublesome and voracious. What can you expect else from a creature that is to grow from the size of a lark to twelve or fourteen pounds, in eight or nine months? "Corn-sacks, coffers for oats, barn-swallowers, ill neighbours to peasen," are epithets deservedly earned. They will jump into the potato-ground, scratch the ridges on one side, eat every grub, wire-worm, or beetle that they find, and every half-grown potato. From thence they will proceed to the Swedes; before the bulbs are formed, they will strip the green from the leaves, thereby checking the subsequent growth of the root. At a subsequent period, they will do the same to the white turnips, and here and there take a piece out of the turnip itself. They are seldom large enough before harvest to make so much havoc among the standing corn, as Cocks and Hens and Guinea Fowl, or they have not yet acquired the taste for it; but when the young wheat comes up, in October and November, they will exhibit their graminivorous propensities to the great disadvantage of the farmer. The farmer's wife sees them not, says nothing, but at Christmas boasts of the large amount of her Turkey-money. One great merit in old birds (besides their ornamental value, which is our special recommendation) is, that in situations where nuts, acorns, and mast are to be had, they will

lead off their brood to these, and comparatively (that is all) abstain from ravaging other crops. It is, therefore, not fair for a small occupier to be overstocked with Turkeys, (as is too often the case; and with other things also,) and then to let them loose, like so many harpies, to devastate and plunder their neighbours' fields.

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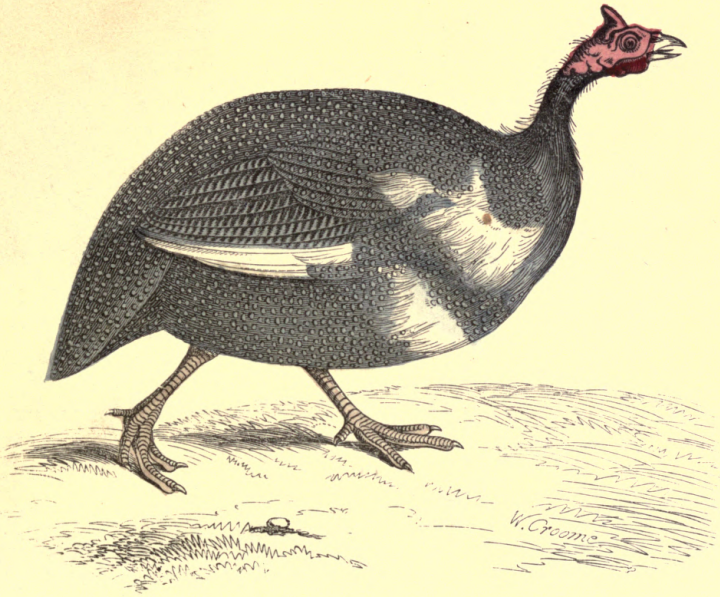

THE GUINEA FOWL.

CHAPTER XXIV.

THE GUINEA FOWL.

This Bird, in some measure, unites the characteristics of the Pheasant and the Turkey, it has the delicate shape of the one, and the bare head of the other. There are several varieties, as the White, the Spotted, the Madagascar, and the Crested. This latter is not so large as the common species; the head and neck are bare, of a dull blue, shaded with red, and, instead of the casque, it has an ample crest of hairy-like disunited feathers, of a bluish black, reaching as far forward as the nostrils, but in general turned backwards. "The whole plumage, except the quills, is of a bluish black, covered with small grayish spots, sometimes four, sometimes six on each feather."

This Bird is frequently called "Pintado," but Mr. Dixon says:—We have refrained from applying the term "Pintado" to the Guinea Fowl: that word signifying, in the Portuguese language, "painted," and having been first appropriated to the black and white-chequered Petrel (*Procellaria Capensis*) by the navigators who found them in the South Seas. The Guinea Fowl is frequently called a Gallina, especially in Ireland. But under whatever denomination, it is no great favourite with many keepers of Poultry, and is one of those unfortunate beings, which, from having been occasionally guilty of a few trifling faults, has gained a much worse repu-

tation than it really deserves, as if it were the most ill-behaved bird in creation:—whereas, it is useful, ornamental, and interesting during its life; and, when dead, a desirable addition to our dinners, at a time when all other Poultry is scarce.

The best way to *begin* keeping Guinea Fowls is to procure a sitting of Eggs from some friend or neighbour on whom you can depend for their freshness, and also, if possible, *from a place where only a single pair is kept.* The reason of this will be explained hereafter. A Bantam Hen is the best mother; she is lighter, and less likely to injure them by treading on them than a full-sized Fowl. She will cover nine Eggs, and incubation will last a month. The young are excessively pretty. When first hatched, they are so strong and active as to appear not to require the attention really necessary to rear them. Almost as soon as they are dry from the moisture of the Egg, they will peck each other's toes, as if supposing them to be worms, will scramble with each other for a crumb of bread, and will domineer over any little Bantam or Chicken that may perhaps have been brought off in the same clutch with themselves. No one, who did not know, would guess, from their appearance, of what species of bird they were the offspring.

The young of the Guinea Fowl are striped like those of the Emu, as shown in the late Mr. Bennett's pleasing description of the Zoological Gardens, as they were in his days. Their orange-red bills and legs, and the dark, zebra-like stripes with which they are regularly marked from head to tail, bear no traces of the speckled plumage of their parents.

Ants' Eggs, (so called,) hard-boiled Egg chopped fine, small worms, maggots, bread-crumbs, chopped meat or suet, whatever, in short, is most nutritious, is their most appropriate food. This need not be offered to them in large quantities, as it would only be devoured by the mother Bantam as soon as she saw that her little ones had for the time satisfied their appe-

tites, or would be stolen by sparrows, &c.; but it should be frequently administered to them in small supplies. Feeding them three, four, or five times a day, is not nearly often enough; every half-hour during daylight they should be tempted to fill their little craws, which are soon emptied again by an extraordindry power and quickness of digestion. The newly-hatched Guinea Fowl is a tiny creature, a mere infinitesimal of the full-grown bird; its growth is consequently very rapid, and requires incessant supplies. A check once received can never be recovered. In such cases they do not mope and pine for a day or two, like young Turkeys under similar circumstances, and then die; but, in half an hour after being in apparent health, they fall on their backs, give a convulsive kick or two, and fall victims, in point of fact, to starvation. The demands of nature for the growth of bone, muscle, and particularly of feather, are so great, that no subsequent abundant supply of food can make up for a fast of a couple of hours. The feathers still go on, grow, grow, grow, in geometrical progression, and drain the sources of vitality still faster than they can be supplied, till the bird faints and expires from inanition. I have even fancied that I have seen a growth of quill and feather after death in young Poultry which we have failed in rearing. The possibility of such a circumstance is supported by the well-known fact of the growth of hair and nails in many deceased persons.

This constant supply of suitable food is, I believe, the great secret in rearing the more delicate birds, Turkeys, Guinea Fowls, Pheasants, &c.; never to suffer the growth of the Chick (which goes on, whether it has food in its stomach or not,) to produce exhaustion of the vital powers, for want of the necessary aliment. Young Turkeys, as soon as they once feel languid from this cause, refuse their food when it is at last offered to them, (just like a man whose appetite is gone, in consequence of having waited too long for his dinner,) and

never would eat more, were food not forced down their throats, by which operation they may frequently be recovered; but the little Guinea Fowls give no notice of this faintness, till they are past all cure; and a struggle of a few minutes, shows that they have indeed outgrown their strength, or, rather, that the material for producing strength has not been supplied to them in a degree commensurate with their growth.

A dry sunny corner in the garden will be the best place to coop them with their Bantam Hen. As they increase in strength, they will do no harm, but a great deal of good, by devouring worms, grubs, caterpillars, maggots, and all sorts of insects. By the time their bodies are little bigger than those of sparrows, they will be able to fly with some degree of strength; and it is very pleasing to see them essay the use of their wings at the call of their foster-mother, or the approach of their feeder. It is one out of millions of instances of the provident wisdom of the Almighty Creator, that the wing and tail feathers of young gallinaceous birds, with which they require to be furnished at the earliest possible time, as a means of escape from their numerous enemies, exhibit the most rapid growth of any part of their frame. Other additions to their complete stature are successively and less immediately developed. The wings of a Chicken are soon fledged enough to be of great assistance to it; the spurs, comb, and ornamental plumage do not appear till quite a subsequent period.

When the young Guinea Fowls are about the size of thrushes, or perhaps a little larger, (unless the summer be very fine,) their mother Bantam (which we suppose to be a tame, quiet, matronly creature) may be suffered to range loose in the orchard and shrubbery, and no longer permitted to enter the garden, lest her family should acquire a habit of visiting it at a time when their presence would be less welcome than formerly. They must still, however, receive a bountiful and frequent supply of food; they are not to be considered safe

till the horn on their head is fairly grown. Oatmeal, (*i. e.* groats,) is a great treat, cooked potatoes, boiled rice, any thing in short that is eatable, may be thrown down to them. They will pick the bones left after dinner, with great satisfaction, and no doubt benefit to themselves. The tamer they can be made, the less troublesome will those birds be which you retain for stock; the more kindly they are treated, the more they are petted and pampered, the fatter and better conditioned will those others become which you design for your own table, or as presents to your friends, and the better price will you get if you send them to market.

Of all known birds, this, perhaps, is the most prolific of Eggs. Week after week, and month after month, sees no, or very rare intermission of the daily deposit. Even the process of moulting is sometimes insufficient to draw off the nutriment the creature takes to make feathers instead of Eggs, and the poor thing will sometimes go about half-naked in the chilly autumnal months, like a Fowl that had escaped from the cook to avoid a preparation for the spit; unable to refrain from its diurnal visit to the nest, and consequently unable to furnish itself with a new great coat. As the body of a good cow is a distillery for converting all sorts of herbage into milk, and nothing else, or as little else as possible, so the body of the Guinea Hen is a most admirable machine for producing Eggs out of insects, vegetables, grain, garbage, or whatever an omnivorous creature can lay hold of.

From this great aptitude for laying, which is a natural property, and not an artificially encouraged habit, and also from the very little disposition they show to sit, I am inclined to suspect that, in their native country, the dry, burning wastes of Central Africa, they do not sit at all on their Eggs, but leave them to be hatched by the sun, like Ostriches, to which they bear a close affinity. That they do in this country occasionally sit and hatch, is no valid objection to this idea,

but only an instance of habits modified by a change of climate, similar to the cessation of torpidity, and to the brown, instead of white, winter dress in animals brought from the arctic regions to temperate climates. Even in Great Britain, there are not enough Guinea Fowls hatched by their actual parents, to keep the breed from becoming extinct in a few years. It is certain that the sands of tropical Africa are more than hot enough to hatch them, and that the young birds are unusually vivacious and independent, if they have but a supply of proper food, which they would find in the myriads of insects engendered there. They are also found wild on the Island of Ascension, but it is doubtful whether any accurate account of their habits or mode of increase there is yet extant.

The normal plumage of the Guinea Fowl is singularly beautiful, being spangled over with an infinity of white spots on a black ground, shaded with gray and brown. The spots vary from the size of a pea to extreme minuteness. Rarely the black and white change places, causing the bird to appear as if covered with a net-work of lace.

A white variety is not uncommon, and is asserted by a Yorkshire correspondent of the "Gardener's Chronicle," to be equally hardy and profitable with the usual kind; but the peculiar beauty of the original plumage is, surely, ill exchanged for a dress of not the purest white. It is doubtful for how long either this or the former one would remain permanent; probably but for few generations. Pied birds, blotched with patches of white, are frequent, but are not comparable, in point of beauty, with those of the original wild colour.

WHITE AND BLACK SWAN.

CHAPTER XXV.

THE MUTE SWAN.—(*Cygnus Olor.*)

THE portrait of the Mute Swan is copied from one in Nolan's "Treatise on the Domestic Fowl," &c. Of this monarch of the lake, Dixon says:—

The Swan is, beyond all question, the bird to place, as a finishing stroke of art, on the smooth lake which expands before our mansions. It is perfectly needless, however delightful, to quote Milton and others, lauding the arched neck, the white wings, the oary feet, and so on. Its superb beauty is undeniable and acknowledged; and, to borrow an apt metaphor, we do not wish, in the present volume, to thresh straw that has been thrice threshed before, to repeat how lovely the Swan is on the silver lake, "floating double, swan and shadow;" for we might thus run, scissors in hand, through the whole Corpus Poetarum. Our object, in short, is simply to point out the best mode of managing them and keeping them.

Any one who lives on the banks of a moderately sized stream, and has a Swan-right on that stream, will probably also have the means of keeping a keeper, who will save him every trouble. But there are a great many people, occupiers of large farm-houses, villas, country mansions, or moated residences, persons, perhaps, of considerable wealth, who have no manorial rights, no ancient Swan-mark belonging to their

estate, but who would willingly pay for the maintenance of a pair of Swans and their annual brood of Cygnets, on enclosed or artificial waters, if they knew but how to order them aright.

Imprimis, then, they are called "Tame Swans," "Domestic Swans:" never were epithets more inappropriate, unless we agree to say, "tame Hyæna, tame Wolf, tame Rat, domestic Pheasant, domestic Swallow." They will come to their keeper's call, and take food from his hand; they will keep at home, when they are completely prevented from ranging out of bounds abroad: so far they are tamed and domesticated, but no further, and never will be. To compare the relations which exist between them and man, with those by which we retain the Goose and the common Fowl, is about as correct as to believe that the same temper and disposition influence the faithful Dog and the wildest Jackal of the wilderness. I put the case thus strongly, in order that it may be understood clearly. The comparisons may be a little exaggerated, but they will serve to raise the real truth into bolder and higher relief. Many systematic naturalists, of deserved reputation, have not been aware of the fact. Professor Low, speaking of the effects of domestication on birds, says—"The Swan, the noblest of all water Fowls, becomes chained, as it were, to our lakes and ponds, by the mere change of his natural form."—*Domesticated Animals of the British Islands. Introduction*, p. liv. Chained, indeed! I should like the learned Professor to see a pair of unmutilated Swans cleaving the air with extended pinions. He evidently takes the Swan to be a domesticated bird, and that it will not fly away, instead of that it cannot. Listen to this:—"I have never kept Swans myself; but those of some relatives a few miles off, sometimes pay us a visit, performing their flight in an incredibly short time." —*H. H.* Waterton, who speaks only so far as he has seen, in his vivid essays gives a similar account of the proceedings of a

Swan, whom he indulged in the free use of his wings, for the gratification of observing his graceful evolutions in the air.* But, at present, the discovery, and introduction, and dispersion of a species of Swan, that would be really tame, and stay at home without being tied by the wing, as prolific, and having a valuable plumage and flesh as the common sort, would be one of the most valuable boons which the great London societies could now offer to the proprietors of limited portions of fluvial and lacustrine waters.

The following extract may give a valuable hint; unfortunately, it does not state whether the pinioning knife had been used. "At the residence of the governor of the province at Calix, I saw three Swans, which, having been taken when young, were as tame as Domestic Geese, to which these birds are so much alike in every respect, that I can have no doubt of their belonging to one genus. Their bill is flat and black at the extremity, as well as on the margins, convex and somewhat angular in the middle, so far at least that the swelling part terminates in an angle. The middle is fleshy where the oblong nostrils are situated; the base, flat or quadrangular, with two sinuses pointing upwards, and pale-coloured. The margin is toothed, just like the Concha Veneris (Cypræa.)"—*Linnæus's Tour in Lapland*, vol. ii. Mr. Yarrell, who, of all naturalists, is perhaps best acquainted with the nice distinctions that separate the various species of Swans, seems to refer the above account to the Hooper or Whistling Swan.

A service might thus be rendered to economical ornithology,

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* "Its powers of flight were truly astonishing. It visited all the sheets of water for many miles around. On taking its excursions into the world at large, I would often say to it, in a kindly tone of voice, as it flew over my head, 'Qui amat periculum, peribit in illo;' as I too clearly foresaw that foes would lie in ambush for it."—*Essays*, 2*d Series*, p. 122.

by fairly trying the Hooper, of whose tameability Linnæus speaks so highly; it is less graceful, however, bearing more resemblance in its attitudes and carriage to the Canada Goose. There is also the Polish Swan, that produces white Cygnets; and Bewick's Swan, if to be procured alive, might originate a stock of great value for limited pieces of water, since it averages in size one-third less than the Cygnus Olor. None of the species can be less domestic than the Mute Swan, if it would really open its heart to us; but, being a "game" bird, of great pluck, it carries off matters with a high hand, and temporarily conceals its hatred of the trammels in which it is compelled to live; the very webs of its feet being sometimes slit, to retard it in its unkind chase after other Water Fowl. It does not shrink from the severest weather which *we* experience, but faces the pelting storm, as if anchored, in the most exposed parts of the lake. For those to whom the amount of purchase-money is of little importance, there is the Black Swan, a creature of much gentler manners, less in size, less tyrannical to other birds, and indeed altogether taking in its ways. It is strange that their price should still continue so high, as they breed in this country, frequently, though not abundantly, under circumstances that must be considered unfavourable. I suspect, from the localities in Australia where they were originally found, that they would thrive all the better for an occasional marine diet, and like the Sheldrake, enjoy now and then a treat of cockles and shrimps, with perhaps a barrowful of sea-weed as the joint on which to cut and come again.

Those who wish to make themselves acquainted with the habits and dispositions, as well as the mere figures and descriptions of animals, should be informed that all living creatures cannot be divided into two distinct ranks of Wild and Tame, as, for example, the Horse and the Zebra among quadrupeds, and the Blue Rock Pigeon and the Ringdove

among birds, just as they would separate the red and the white men on a chess-board, but that there is a most perplexing intermediate multitude, neither wild nor yet tameable, but usually spoken of as "familiar" or "half domesticated," a term without meaning—dodging, like camp-followers, on the offskirts of human society, but determined never to enlist in the drilled and disciplined ranks, playing the game of "off and on," but always ending with the "off." Such are, among many others, the Partridge, Rats and Mice, the House Sparrow, the Water Hen, and, at a still greater distance, I believe and fear, the whole genus of Swans proper.

Is there nothing resembling this amongst the human race? The mention of the word "Gipsy" will set thought-capable persons a-thinking. "Oh! but they have been neglected, uneducated, ill-cared for! Educate! Educate!" say well-intentioned persons, who seem to declare that the soul of man is a *carte blanche*, and who would thereby, unthinkingly, deny the doctrine of Original Sin, as asserted by the Church of England. But I have seen enough, both of bird and mankind, to know that the heart of neither is a *carte blanche*—you cannot write, on either, whatever may be your pleasure there to inscribe. Your duty, in both cases, is to take them as you find them, and make the best you can of them for their interest, which will be found eventually to coincide with your own.

Swans, then, are *feræ naturæ* to all intents and purposes; of that there is no doubt, whatever the law of the matter may be: but, although capricious birds, wild in their very nature, like most living creatures they have some attachment to place. The first point, therefore, is to settle them agreeably in their destined home. Old birds are less likely to be contented with a new abode, unless very distant from their former one, and are seldom to be obtained in the market. Cygnets may be procured every autumn; if they have been put up to fat for

some time, so much the better, as they will the sooner become tame, and contented with a small range—which I am supposing to be the thing required. The disadvantage of having Cygnets to begin swan-keeping with, is, that they are less ornamental till they have attained their perfect plumage, and the proper orange-colour of the bill, and that they do not breed till their third year. It is not, however generally known that the male is capable of increasing his kind a year earlier than the female; so that a brood may be obtained from an old Hen, and a Cock-bird in his second year. In selecting a pair, the great thing is to make sure of having two birds of opposite sexes. Two Cock-birds will not live together, and their mutual aversion would soon show that all was not right; but two Hens will—which is the case also with Pigeons. A friend of mine procured a couple of Swans; they were affectionate and happy in each other's society: in due time they made their nest and laid. Great were the expectations; such a plenty of Eggs; both Swans assiduous in sitting—rather suspicious that—the produce, addle-eggs. The two ladies could not raise up a family between them.

In selecting any Water-birds whose plumage is alike in both sexes, and which cannot therefore be distinguished with certainty, the best rule is to see them in the water, and take that which swims deepest for the female, and that which floats with greatest buoyancy for the male, remembering that all creatures of the masculine gender have the largest lungs in proportion to their size. The neck of the Cock-bird is usually thicker. An experienced eye will, besides, detect a certain feminine gentleness and modesty in the one, and an alacrity and boldness in the other, which is a tolerably safe guide, as well as an appropriate and becoming attribute to the creatures themselves. It is cheaper in the end to give a fair price for a pair of old, well-seasoned birds to begin with, than to undergo the care, the delay, and perhaps the disappointment of nursing Cygnets

through their youth of three long years' duration. Brightness and clearness of the orange on the bill, and full development of the knob or "berry," indicate the complete maturity of the bird. Supposing, however, the reader to have obtained two Cygnets that are not mere friends, but actually husband and wife, he will recollect that those reserved for fatting are never pinioned, lest it should check their progress; and he will request the operation to be performed before he has them home, in order that they may have the fewest possible disagreeable reminiscences connected with the spot where they are to spend their lives. There are two ways of pinioning birds; at the elbow joint, and at the wrist. The amputation of the part of the wing which corresponds to our hand is quite sufficient to prevent the flight of the short-winged species, as far as migration is concerned, disfigures them less than the closer pruning, and still leaves them the means of escape from a dog or a poacher, allows them now and then in their gambols to fancy they are free, and to enjoy a sort of half-run, half-fly, from the lawn into the water. Kindness, comfort, and good feeding must be employed to keep them at home as far as possible; but the loss of the last joint only of the wing will not be enough to prevent Swans from joining any travelling companions who are on the way to the Artic circle. I should recommend the female to be pinioned at the wrist, the male at the elbow, trusting to their mutual attachment to keep the less-maimed bird from deserting her mate. But however it be done, let it be set about in a workmanlike manner; no chopping nor hacking, nor hewing, nor butchering. Many Cygnets are annually killed by the clumsy way in which their wing is lopped off. They suffer from the shock to their nervous system as much as from hæmorrhage.

A skilful operator will feel for the joint, divide the skin, and turn the bone neatly out of the socket. I will allow him

to shed just one drop of blood—no more. I would be as hard upon him as Portia was upon the flesh-cutting Jew:

> "This bond doth give here no jot of blood;
> The words expressly are a limb of swan;
> Take then thy bond, take thou thy limb of swan;
> But, in the cutting it, if thou dost shed
> One drop of cygnine blood, thy clumsiness
> Shall brand the name of 'Bungler' on thy back.
> Therefore, prepare thee to cut off the limb;
> Shed thou no blood; nor cut thou less nor more,
> But just the very limb; if thou tak'st more
> Or less than just the limb, thou shalt bewail
> The consequence."

If any brook runs into and from the pond where they are to remain, their escape through that channel must be prevented by sheep-netting, hurdles, pales, or other fencing, which should be continued some distance inland, lest they should walk away, if they cannot swim away. This precaution will be found particularly necessary if there is any main stream in the immediate neighbourhood. A feeding-trough may be fixed for them in the pond, in the part where it is most desirable that they should be accustomed to display themselves. Those who are fastidious about the sight of such an object, or who wish to have it thought that the Swans keep so much in view from purely disinterested motives, (from simple affection to their masters, not from the greedy love of corn,) may contrive to have it hid beneath a bank, or behind a tree or shrub. The trough must be fixed in the pond, on two firm posts, within arm's length of the shore, raised high enough from the water to prevent Ducks from stealing the food contained therein, having a cover which lifts up by hinges, and so forms a lid, to keep out Rats and Sparrows, and open only in front. Many persons, however, feed their Swans by simply throwing the corn into shallow water. They will skim the

surface for the light grains which float, and then submerge their heads in search of that which has sunk. Should any Carp (that fresh-water Fox) be occupants of the same lake, it will be found that they soon learn the accustomed hours of feeding, and will come to take their share along with their feathered friends. But it is cruel to locate a pair of Swans, for the sake of their beauty, in a new-made piece of water, whose banks and bottom are as barren and bare as the inside of a hand-basin. A load or two of water-weeds should have been thrown in, the previous spring, to propagate themselves and afford pasturage. Sometimes, after an old-established sheet has been cleansed at a great expense, it is thought that Swans would now look well there, and they are forthwith turned in, to be starved; whereas they would thankfully have undertaken the cleansing task for nothing. Swan-food exists in proportion to the shallowness and foulness, not to the extent and clearness of the water. A yard of margin is worth a mile of deep stream; one muddy Norfolk broad, with its oozy banks, labyrinthine creeks, and its forests of rushes, reeds, and sedges, is better, in this respect, than all "the blue rushing of the arrowy Rhone," or the whole azure expanse of the brilliant Lake of Geneva.

In confined waters, Swans require a liberal supply of food in the autumn, when the weeds run short. It should be remembered that at this season they have to supply themselves with a new suit of clothes, as well as to maintain their daily strength. If they have not been taught to eat corn, and have not acquired a notion of grazing, they will perish from starvation as undoubtedly as a canary-bird neglected in its cage. Young birds are apt to be fanciful or stupid, and have not sense enough to come on the bank and eat grass, or pick up the threshed corn that may be thrown down to them. Sometimes they may be tempted with a lock of unthreshed barley or oats, thrown, straw and all, into the water, which they will

instinctively lay hold of and devour. Cygnets which have been previously put up to fatten, will give little or no trouble in this respect, besides the advantage of being accustomed to the near approach of a keeper.

In one week I lost two Swans, a Cygnet, and a year-old bird, from the consequences, I fear, of a few days' short diet at moulting time. Suspecting foul play from some ill-natured person, I caused a *post mortem* examination to be made of that which died last; but, in a literal sense, nothing could be found. The poor thing was empty and emaciated, though it had been fed with corn two or three days before, and though it had only to ascend a bank a foot high to enjoy a plentiful feast of good grass. It had been seen sailing about, in apparent health and spirits, the previous evening, and my mind is not yet quite satisfied about the subject. The following remarks may perhaps afford some clue in similar cases.

"Swans wandering by night, in search of watercresses chiefly, are always in danger from the different vermin which prey upon poultry and game—weasels, stoats, polecats, &c. And Swans thus destroyed exhibit no wounds or marks upon the body; but upon the head and neck, where, on a minute inspection, the wounds are discovered through which the vermin have sucked the life-blood, leaving the bulk so little affected that the feathers are unruffled. The wounds appear scarcely the size of a pin's head, but are generally above half an inch deep. Geese and Turkeys are also liable to be destroyed by these nocturnal marauders, which, like all beasts of prey, sleep throughout the day."—*Moubray on Poultry*, 8th edition, p. 128.

One would doubt the fact of so large a bird as the Swan falling a victim to a wretched little weasel. But a relation of mine had a pair of Canada Geese, birds little inferior in size to the Swan, which in the breeding season were suffered to shift their quarters from the farm-yard, their usual abode,

to a neighbouring broad, where he had rights. After a time one bird returned home alone, and its missing mate was at length discovered, half-decomposed, on a sedgy islet in the broad, in such a position as to indicate that it had been surprised and killed by one of the larger weasels, a stoat, or a polecat.

Considerable difference of opinion has been entertained respecting the diet of the Swan; some supposing it to be exclusively vegetable, others believing that fish enter largely into it. My own observations tend to prove that a very considerable part of their nutriment is obtained from minute insects and molluscs. The sluggish, weedy waters, where Swans thrive best, abound with such creatures; and the Whale is a sufficient example that the size of the prey is no index to the magnitude of the creatures that subsist on it. Swans fall off in condition very rapidly in autumn, however liberally they are supplied with corn, immediately that the temperature drops to any extent, and the minor inhabitants of the pools disappear into their winter retreats. A very small fish might now and then not come amiss to them, and spawn would be greedily devoured. A Swan must be considerably more destructive in this respect than the poor little Water Ouzel, which is so bitterly persecuted along the salmon-streams of Scotland, for the alleged injury it does to the ova of the fish. The seeds of grasses, and the soft starchy parts of aquatic plants, are no doubt a considerable portion of the daily ration of the Swan. It seems to prefer sloppy, half-decayed vegetation, to that which is fresh and crisp. Spare garden-stuff, spinach, and such like, thrown out for them, is liked all the better for having lain soaking at least twenty-four hours, that is, in such time as it has become sodden and attacked by small fresh-water shell-fish. If their mode of feeding is watched, it will be found to countenance the popular belief that many birds live "by suction;" they appear to suck down the pappy

food, which pleases them best, rather than fairly to crop and swallow it.

Consequently, there is no bird in the least comparable to the Swan as an agent for clearing a pond of weeds. It does not, however, eat all weeds indiscriminately; it seems scarcely to touch the water-lilies, white and yellow, except perhaps in a very young state, though it no doubt checks their increase by seed. These, when too numerous, may be uprooted by means of a long pole armed with an iron claw, and used either from the shore or from a boat; once detached from their moorings, they may be floated away. Swans seem to prefer, first, what we call the lower forms of vegetation, the Confervæ and the Characeæ, then the Callitricha aquatica, or Water Starwort, and the long list of Potamogetons, or Pondweeds: the rhizomata of all sorts of reeds, rushes, arrow-heads, &c., are greedily torn up and devoured. A lake of half an acre in extent is quite large enough (with the assistance of corn, refuse vegetables, and grass-clippings, when the weeds run short) not only to maintain a pair of Swans, but to supply an acceptable lot of fat Cygnets every autumn. Swans have been kept successfully in a much more limited space. But in one instance within my own knowledge, where the extent of water is not a quarter of an acre, the annual brood, as soon as they entered the pond in company with their parents, were devoured by some enormous pet Pike that equally shared their owner's favour—a hint that one cannot breed Swans and freshwater sharks at the same time and place.

The Swan, consuming the submerged refuse of plants, is thus the scavenger of the waters, as the Hyæna and the Vulture are of the land. In such countries as Holland, and still more about the deltas of large rivers in the south of Europe and western Asia, their influence must be very beneficial. Indeed, we are compelled to believe that they have been bountifully created to fulfil this office of cleansing the half-stagnant

water-courses. Unlike the old dragons that could exhale a pestilence and infect a whole district with their breath, these winged tenants of the marsh swallow many a plague and fever up. Not a little miasma has travelled harmlessly down the throats of Swans. They can fatten on poisons, although ignorant of King Mithridates or his antidote.

A curious instance of the animal diet of the Swan once occurred to myself. The common brown shrimp, it is well known, inhabits, and thrives in waters less strongly impregnated with salt than the open sea, which is not the case with several other species: and I was desirous of trying whether it were possible to stock with them a piece of water absolutely fresh. A quantity were procured and brought home in a fish-kettle of tidal river-water; but the heat of the weather at the time was much against the success of the experiment. On arriving at their journey's end, the great majority were dead. They were all, however, turned out together: a few swam off apparently unaffected by the unwonted element, and were never seen or heard of afterwards; the rest sank to the bottom; when one of my Swans, expecting her feed of cord, sailed up, and began feasting on the dead shrimps, crushing them in her bill before she swallowed them, and appearing much to relish her meal.

The difficulty there sometimes is in getting Swans to eat corn, or to graze like Geese, shows that either diet is with them an acquired taste.

At the proper age and season they will show a disposition to breed, if well fed, although restricted within comparatively narrow limits. As soon as they have decidedly fixed upon the spot for their nest, it will be an assistance to take them two or three barrowfuls of coarse litter. Sedges and rushes are the best, with perhaps a few sticks, which they can arrange at their own pleasure. The number of Eggs laid will vary from five or six to ten, but the number of Cygnets hatched seems, like

the fall of lambs, to depend much upon the season and the weather of the few preceding months. One year the three pairs of Swans nearest to me had each a brood of nine—twenty-seven Cygnets in only three families. But this is above the average. I have, however, seen seven reared on a very small moat. It is better not to gratify any unnecessary curiosity respecting the Eggs; indeed the parent birds will hardly allow it. The Cock makes great show, and often more than show of fight against interlopers. A blow from his pinion on land is better avoided; and in the water he would bother the strongest smimmer to escape from his fury. I was once attacked by a Swan, when walking too intrusively near his lady's lying-in bed; he was keeping guard, by sailing in short tacks backwards and forwards before her, but he left the water to give me a forcible hint to go about my own business. The only thing was to meet the threatened danger; so, seizing his neck in one hand and his outstretched wing in the other, I tossed him as far into the middle of the stream as I could. He seemed a little astonished for a few moments, but, lashing the waters into foam, he would have renewed the attack, had I not speedily withdrawn from his dominions. Coming to close quarters with them is the surest mode of defence. The blow of a Swan's wing, to take effect, must hit from a certain distance. It is clear they are mischievously minded at such times; but I think that the real danger to be apprehended has, from policy, been exaggerated, that it may act as a sort of guardian dragon to the tempting fruit of the Hesperides. There are possibly persons living who would not be unwilling to have it believed that Hares and Pheasants are most formidable creatures to encounter, especially on moonlight nights.

The Cygnets, when first hatched, are of a slaty gray, inclining to mouse-colour. The time of incubation is six weeks, or thereabouts. A common notion in Norfolk is, that the Cygnets cannot be hatched till a thunder-storm comes to break

the shells, and that the Hen will go on sitting till the birth of her young ones is complimented with that portentous salute. A Swan might boast, with Owen Glendower—

> "At my nativity
> The front of heaven was full of fiery shapes,
> Of burning cressets; know, that at my birth
> The frame and the foundations of the earth
> Shook like a coward."

Let us not reply in the contemptuous language of Hotspur, nor altogether reject the popular idea; the close sultry weather which sometimes for two or three days precedes a tempest, would hasten the development of Chicks that were nearly arrived at the hatching point. What effect electrical oscillations have on animal life we as yet know not, but our own feelings tell us they have some.

The happy parents will charge themselves with the entire maintenance of their tender young, if they have but the range of a large extent of river banks and shallow water; will lead them up the quiet ditches, point out the juicy blade, the floating seed, the struggling insect, the sinuous worm; will then steer to shoals left by some circling eddy, and, stirring up the soft sediment with their broad feet, show that minute but nutritious particles may thence be extracted. As hunger is satisfied and weariness comes on, the mother will sink in the stream till her back becomes an easy landing-place, and the nurslings are thus transferred, in a secure and downy cradle, to fresh feeding-places.

But in a restricted beat they must not be left altogether to themselves. A glently sloping bank will enable them to repair at pleasure to the grassy margin. The old ones must have plenty of corn, which they will by-and-by teach their young to eat; tender vegetables from the kitchen-garden, such as endive, lettuce, or cress, will help to sustain them, besides attracting those soft-bodied water-creatures that are of all food

the most needful. Pollard frequently scattered on the surface of the pond will be of material assistance; and whatever it is found that they will eat, let them have in the greatest abundance. Their growth is rapid; their weight should be considerable, with but little time to acquire it in. The period cannot be extended much longer than from June to the end of November. By Christmas they must all either be eaten, or have emigrated, when the parents will begin to direct their thoughts forward to a succeeding family. Confined Swans sometimes get a sort of quid of mud, fibres, and gravel, under their chins, which it is as well now and then to examine and clean out.

A fat Cygnet is a capital dish, and deserves a higher repute than it generally obtains. Its stately appearance on the table is alone worth something. Those who have only a good-sized pond—say from a quarter to half an acre of water—may rear and fat an annual brood. In so small a space, the old birds must of course share with their young the extra supply of fatting corn; but they will get through the winter the better for it, and be more prolific in the spring. Neither they nor their Cygnets should at any time be allowed to become poor.

When Cygnets are removed from their parents, to be fatted in a regular Swan-pond, it is usual to separate them at the end of August or the beginning of September. At first, grass is thrown into the water to them twice a day, with their other food; but this is not continued for more than a fortnight. A comb of barley is the established allowance to fat each Swan. The corn is put into shallow tubs, set just under water. The birds are considered worth from 10*s.* to 12*s.* each when they are "hopped" or "upped" from their native streams; but when brought into prime condition, 2*l.*, formerly 2*l.* 2*s.* They may occasionally be had for less, in which case they make a cheap as well as a handsome dish to set before a large dinner party. Their weight in the feathers varies from 25 lbs. to 28 lbs. and sometimes, though rarely, 30 lbs. They are never

better than in the month of November, when the gastronomical enquirer, who is yet unacquainted with their merits, is recommended to give them a fair and impartial trial. They may be had till Christmas, after which they are good for nothing. A bird weighing 28 lbs. before Christmas, has been known to shrink to 17 or 18 lbs. by the end of January, in spite of high feeding. Therefore, make hay while the sun shines, Mr. Epicure. As, in the spring, the snow-drop gives way to the primrose and the violet, so, in autumn, the Swan yields its place on the board to the Turkey and the Guinea Fowl. If to-day is lost, to-morrow the opportunity will have flown, in higher concerns than mere eating and drinking. Now —or, perhaps, never.

The Swan-feasts that seem to have left the most pleasing impressions on the palates of the partakers have been solemnized as early as the month of September. As to the mode of dressing, those artists who are skilled in the treatment of venison will easily cook Swan, viz., with a meal crust over it, to keep the gravy in. Instead of stuffing it with sage and onions, like a Goose, (vulgar condiments to vulgar birds,) use rump-steak chopped fine, and seasoned with cayenne and salt. When browned, and served to an admiring circle, let it have rich gravy and currant-jelly, the latter hot as well as cold, in respectful attendance.—And is that all? No, the best remains behind. The hash next day is worth riding twenty miles to eat. Nay, more; the giblets make soup before which ox-tail sinks into insignificance. The mere writing about it has made me hungry. Mr. Yarrell gives some information on the subject, which I will not wrong him by pirating. See "British Birds," vol. iii. p. 127. He has also collected a curious list of swan-marks.*

* One of my correspondents in South Carolina, Hugh Wilson, Esq., informs me that, in the winter season, Swans are quite numerous in that region, and are frequently taken alive.—Ed.

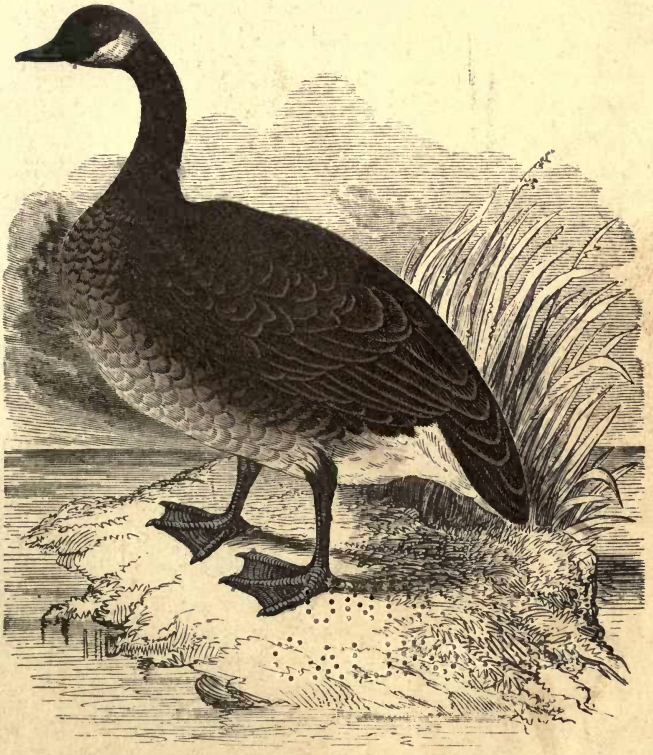
CHAPTER XXVI.

THE WILD GOOSE.

This Bird is called by European writers, the Canada Goose. It is capable of domestication, and, as a Wild Bird, breeds in the Arctic regions, going south on the approach of winter; its migrations north, are the sure sign of returning spring. Over all the Atlantic States, at least, the inhabitants are quite familiar with its passing and repassing.

It is said, with what truth I know not, that, though the Wild Goose will breed with the Domestic, yet the half-breds will not breed with each other.

Mr. Dixon is under the impression, that what he calls the Canada, (the same as our Wild Goose,) the Bernicle, and the Brent Goose, are all occasionally mistaken for each other. This he attributes to what he calls, and justly too, the compiling system of Zoological literature; for he says, that the history of the *Anser Canadensis*, in a state of nature, and in captivity, has been so well and so fully written by the ablest ornithologists, both of England and America, that for me to attempt giving complete details, would be either to restate the same facts in less appropriate language, or to commit a wholesale plunder of compilation upon the stores of preceding authors. But, although unwilling to be guilty of this kind of pillage, I must necessarily make some reference to the labours



CANADA OR WILD GOOSE.

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of others. The bird is far too important, in every respect, to be entirely omitted in the present series; and there are a few points respecting it, which ought to be brought into more prominent notice. Our Poultry books mostly call it a variety of the Common Goose. But it is no more a *variety* of Goose than the Swan is a variety of Goose. Cuvier seems to doubt whether it is a Goose at all, and says that it cannot be properly separated from the true Swans. Audubon kept some three years, and, though the old birds refused to breed in confinement, their young, which he had captured together with them, did. He states their period of incubation to be twenty-eight days, which is a shorter time than one would have imagined. That circumstance alone, if correct, marks a wide distinction; and every statement of his, which I have had the opportunity of testing, has proved accurate. I suspect that at a future time, our scientific naturalists will deem it advisable to institute several new genera, for the reception of various waterfowl that are now huddled into one or two; particularly if they allow the diet and habits of the birds, as well as their external form, to influence the rules of classification.

Canada Geese eat worms and soft insects, as well as grass and aquatic plants, which the typical Geese never do; with us they do not breed till they are at least two years old, and so far approach the Swan. Like the Swan, also, the male appears to be fit for reproduction earlier than the female. But Audubon says, "That this tardiness is not the case in the wild state, I feel pretty confident, for I have observed having broods of their own, many individuals, which, by their size, the dullness of their plumage, and such other marks as are known to the practised ornithologist, I judged to be not more than fifteen or sixteen months old. I have therefore thought, that in this, as in many other species, a long series of years is necessary for counteracting the original wild and free nature which has been given them; and, indeed, it seems probable that our attempts

to domesticate many species of wild fowls, which would prove useful to mankind, have often been abandoned in despair, when a few years more of constant care might have produced the desired effect." The Canada Goose, in spite of its original migratory habits, which it appears in almost every case to forget in England, shows much more disposition for true domestication than the Swan, and may be maintained in perfect health with very limited opportunities of bathing.

The manner in which these birds are usually kept here, is neither consistent with their natural habits, nor calculated to develop their usefulness and merit. They are mostly retained as ornaments to large parks, where there is an extensive range of grass and water: so far, all is as it should be. But they are there generally associated with other species of Geese and water fowl, all being of a sociable disposition, and forming one heterogeneous flock. In the breeding season, they neither can agree among themselves to differ seriously, nor yet to live together in peace; the consequence is, that they interrupt each other's love-making, keep up a constant bickering, without coming to the decisive quarrels and battles that would set all right; and in the end we have birds without mates, Eggs unfertilized, and now and then a few monstrous hybrids, which, however some curious persons may prize them, are as ugly as they are unnatural, and by no means recompense by their rarity for the absence of two or three broods of healthy legitimate goslings. Many writers, Audubon among others, from whom one would have expected a more healthy taste, speaks highly of the half-bred Canada Goose. They are very large, it is true, and may merit approbation on the table; but with whatever other species the cross is made, they are hideously displeasing. An old-fashioned plan of sweeping chimneys was to tie the legs of a Goose, pull her up and down by a string, and let her dislodge the soot by the flapping of her wings. This sounds cruel, and is not humane. But is it more barba-

rous to send a Goose down a chimney, than a child up it? This by the way: but all half-bred Canada Geese, that I have seen, look as if they had kindly undertaken to act as substitute for the poor little climbing boy or girl.

Not only are they suffered thus to herd with other varieties, but the broods of successive years are allowed to remain, and annoy, and encroach upon the privileges of their parents, (which would be made all square by their natural migrations,) till the park gets evidently overstocked to the most unpractised eye—it has really been so long before—and then a few surplus individuals are disposed of, mostly at an age and season when they are good for little except their feathers, if for them. This mode of mismanagement accounts for the low esteem in which the flesh of the Canada Goose is held in England. I never met with any one who had tasted it here, that did not pronounce it detestable; though a gentleman who had lived on it for weeks in Canada, still remembered it with relish. In one instance within my own knowledge, the extra stock were given to the poor, who could not or would not eat them. But it is impossible that the thousands of people who eagerly destroy the bird in its passage to and fro, can be mistaken in the opinion they have for years held of its value as an article of diet. Audubon gives the clue to our error; he says, "the goslings bred in the inland districts, and procured in September, in my opinion far surpass the renowned Canvas-back Duck"—the most famous tit-bit that America produces. He adds, "every portion of it is useful to Man; for besides the value of the flesh as an article of food, the feathers, the quills, and the fat are held in request. The Eggs also afford very good eating."

Instead of this slovenly mode of breeding and feeding, which no one would think of adopting with the most ordinary Goose that ever grazed upon a common, I would, not unadvisedly, recommend every flock of Canada Geese to be in No-

vember immediately reduced to two, (in order to guard against accident to one,) or, at the most, three pairs, in the very largest park, and greatest extent of water, possessed by our no bility. Such pairs should be retained, as differ as much in age, as may be consistent with their breeding powers; and also, if possible, those should be selected which have been observed to entertain a mutual dislike, in order that they may fix their nests at a distance from each other. They should previously have become attached to their keeper, though not to their co-mates, that they may suffer him to approach and feed them and their Goslings liberally, and so bring them into thoroughly good condition by killing-time.

The stock-birds ought to be well supplied with corn during winter when the grass grows little or not at all, to promote early laying; but they usually have just half a dozen kernels of barley thrown down to them now and then. No one can blame them, if they occasionally stray out of bounds in search of food; but they are then accused of restlessness, shyness, and so on. They have been literally starved out. It is no migratory impulse that sets them on the move, but over-crowding and under-feeding; in proof of which, they will generally return of their own accord. I am speaking of birds that have been bred in captivity for several generations. Give them room and food enough, and they will stay contentedly at home. Curtail their supplies, and they become like "darkness" in Spofforth's well-known glee; "flies away" is ever and again the burden of their song. The Canada Goose is a very large bird, and cannot be expected to live and get fat upon air. If a farmer's wife were to treat her Turkeys as the Canada Goslings are usually served, they would at Christmas be just as tough and stringy, and uneatable, if indeed they survived the pinching regimen so long. Many people in the country make the same difference in their treatment of their ornamental Fowls and their ordinary stock, that

they do between their garden and their farm. The garden goes without a spadeful of manure from one end of a seven years' lease to another; the turnip-field is glutted with guano and all sorts of good things. And so, exotic birds, procured at considerable expense, or received as highly valued presents from friends, are turned out in a grassy wilderness, to shift for themselves as best they may, while the Turkeys and Goslings are taken as much care of as their master's children. To a late inquiry after the fate of a pair sent to a distance, I got for answer, "One flew away, and the other the Swan killed." The growing Canada Geese must sensibly miss the abundance of their native breeding-places, when confined to these short commons; and it is not just in us, after such neglect and penuriousness on our part, to complain that they neither fat well nor reproduce at an early age.

From each pair of Geese, properly looked after, between six and nine Goslings may fairly be calculated upon; which, killed in the autumn, when really plump, would be very acceptable at home, or, as presents to unprejudiced persons. Managed thus, they would be little, or, according to Audubon, not at all inferior to a fatted Cygnet. And their picturesque effect, as accessaries in landscape gardening, would surely be greater in distinct uniformly tinted groups, moving here and there across the scene with a decided object, namely, the conducting of their young, than as a motley crowd of diversely-coloured, variously-shaped creatures, huddled together in unmeaning confusion. The woodland-park should be stocked on different principles to the aviary and the menagerie. Thus it is as a spot of pure white that the Swan gives such a sparkling brilliancy to the picture; and the point of deepest shade (an adjunct of no less importance to the painter) may be made more intense and effective by the judicious employment of the Canada Goose.

When a pair are received from a distance, the best way of

settling them in their new abode is to confine them with hurdles and netting, as near as possible to the spot where it is wished they should eventually make their nest. Those from the hands of dealers will generally be cowed or timidly tame; but young birds, fresh taken from their parents, or adult ones that have been removed from their old home to a new one, will sulk and be shy. For the first few hours they need have nothing to eat, only plenty of water to drink. Their keeper should show himself to them, and speak to them kindly, as often as his leisure will permit; when he guesses that they begin to fell the cravings of hunger, a small handful of corn may be thrown down to them, a cabbage or two, and half a dozen earth-worms. It is, of course, supposed that they have been located on the grass. It is likely that at first they will not eat in the presence of a stranger: they may be left for an hour or so, when, if they have availed themselves of his absence, he may give them a little more from time to time. Proceeding thus by kindness, familiarity, and very frequent visits, he will soon secure their confidence, and be able to form his own judgment when they may be suffered to range at large.

The young are active, self-helping little things. Their down is of a dirty gray, a colour very difficult to describe, with darker patches here and there, like the young of the China Goose. Their bill, eyes, and legs are black. They give no trouble in rearing. The old ones lead them to the places where suitable food is to be obtained. The keeper, by a liberal supply of corn, can bring them forward for the table better than by shutting them up to fat; and before Christmas the parents should be alone again in their domain. They will continue to increase in size and beauty for some years, and should have been pinioned at the first or second joint of the wing, (reckoning from the tip,) according to the scope they are to be allowed, in the manner described for the Swan: the young

that are to be eaten had better remain unmutilated. I believe that old birds, killed in the autumn, after they have recovered from moulting, and before they have begun to think about the breeding-time, would make excellent meat, if cut into small portions, stewed slowly five or six hours with savoury condiments, and made into pies the next day. "'Tis the soup that makes the soldier," say the French. By roasting or broiling similar "joints," we lose the large quantity of nutriment contained in the bones and cartilages, besides having to swallow tough what we might easily make tender. The young (as well as the old) are, in America, salted and boiled; they would probably please most English palates better if cooked and served Swan-fashion. A Committee of Taste having assembled on January 22, 1850, to investigate the edible merits of a well-conditioned Canada Goose, pronounced them to be of a high order, rivalling those of Swan, which must be taken as the standard of excellence, if we at all defer to the opinion of the Churchman entertained by Chaucer's Franklin:

> "Now certainly he was a fayre prelat:
> He was not pale as a forpined gost;
> A fat Swan loved he best of any rost."

Audubon's description of their manners is most vivid, and, as far as I have observed, quite accurate, and not at all exaggerated. The young male has a frequent disposition to neglect his own mate, and give himself up to unlicensed companionship. We had one that deserted his partner, to her evident grief, and made most furious love to one of a flock of Tame Geese, separating her from the rest, not permitting any other water-bird to swim near her, stretching out his neck stiffly on a level with the water, opening his red-lined throat to its utmost extent, hissing, grunting, sighing, trumpeting, winking his bright black eyes, tossing his head madly, and all kinds of folly. We did not choose to permit such conduct;

but as often as we killed and roasted the object of his affections, he immediately selected another leman, invariably the ugliest of the surviving females. One short, squat, rough-feathered, ill-marked Goose, with a thick bill and a great gray top-knot, was his especial favourite. When the Michaelmas murders had extirpated the whole race he so admired, he returned reluctantly and coldly to his former love. The best remedy in such a case is to divorce them at once, and exchange one out of the pair for another bird.

CHAPTER XXVII.

THE DOMESTIC GOOSE.

'Tis the opinion of some that our Common Goose is a mongrel, as the Dunghill Fowl, made up of several varieties as the Gray-leg, White-fronted, Bean, and Pink-footed Goose, to each of which it occasionally shows more or less affinity. As to the practical qualities of this Fowl, we may say, on the best testimony, they are very considerable. Mr. Taggart, in a recent letter to me, says, "Of all Poultry, Geese can be raised with the greatest ease, in the shortest time, and at the least expense, provided you live in the country, or in a village where grass grows in the streets and alleys. I have only reared them once, but I am certain Goslings can be brought up on *grass alone;* though, of course, they grow much faster, if better fed. I fed mine well, on Indian-meal and milk, and sometimes on corn—this, in addition to good pasture—and see the result—they are of common blood, and not remarkable for size. At 33 days old, one weighed 5½ lbs.; at 47 days, 6 lbs. 15 oz.; 54 days, 8 lbs. 3 oz.; 64 days, 8 lbs. 14 oz.; at 93 days, 11¼ lbs., when I killed him. For Eggs, Geese are no 'great shakes,' but, to use a Crockettism, 'they're —— on a grow.'"
On this subject Mr. Dixon says:—

We apply the term, "Domestic" to the Goose, using only "Tame" for the Duck, to signify a much closer intimacy with and submission to the control of Man; and, as a further contrast, the domestication of the common Goose, like that of the Fowl,

hides itself, as we pursue it, in the remotest depths and obscurest mists of ancient history. We have already hinted, that by the Hebrews, as by many modern naturalists, it would probably be classed generically with the Swan, and so be included in their list of unclean birds. Among the Greeks and Romans, it seems to have been the only really domesticated Water Fowl; and appears to have held exactly the same place in their esteem, that it still retains, after the lapse of two or three thousand years, in our farm-yards, and on our commons. Indeed, a modern writer may escape a great part of the trouble of composing the natural history of the Domestic Goose, if he will only collect the materials that are scattered among ancient authors. A very early notice of them occurs in Homer. Penelope, relating her dream, says,

> "A team of twenty geese (a snow-white train!)
> Fed near the limpid lake with golden grain,
> Amuse my pensive hours."

Pope's version is both flat and inaccurate. The "snow-white train," (I would bet Mr. Pope a dish of tey—as he rhymes it—that Penelope's *Geese* were not snow-white, whatever the Ganders might be,) the "limpid lake," the "pensive hours," are not Homeric, but Popeian. The literal translation of the Greek is, "I have twenty Geese at home, that eat wheat out of water, and I am delighted to look at them." We omit the rest of her vision, as little to our purpose; but her mode of fatting them, and her complacent chuckle at seeing them thrive, could not be surpassed by the most enthusiastic members of the Royal Agricultural Society. If she entertained her numerous suitors with fat roast Goose, it may partly explain why they stuck to her in so troublesome and pertinacious a manner.

The alarm given at the approach of the army of the Gauls, by the Geese kept in the capitol of Rome, occurred so long

back as A. U. C. 365, or 388 years before Christ. The passage is worth extracting:

"Thus they were employed at Veii, whilst, in the mean time, the citadel and capitol at Rome were in the utmost danger. The Gauls either perceived the track of a human foot, where the messenger from Veii had passed, or, from their own observation, had remarked the easy ascent at the rock of Carmentis: on a moonlight night, therefore, having first sent forward a person unarmed, to make trial of the way, handing their arms to those before them, when any difficulty occurred, supporting and supported in turns, and drawing each other up, according as the ground required, they climbed to the summit in such silence, that they not only escaped the notice of the guards, but did not even alarm the dogs, animals particularly watchful with regard to any noise at night. They were not unperceived, however, by some Geese, which, being sacred to Juno, the people had spared, even in the present great scarcity of food; a circumstance to which they owed their preservation; for by the cackling of these creatures, and the clapping of their wings, Marcus Manlius was roused from sleep,—a man of distinguished character in war, who had been consul the third year before; and snatching up his arms, and at the same time calling to the rest to do the same, he hastened to the spot, where, while some ran about in confusion, he, by a stroke with the boss of his shield, tumbled down a Gaul who had already got footing on the summit; and this man's weight, as he fell, throwing down those who were next, he slew several others, who, in their consternation, threw away their arms and caught hold of the rocks, to which they clung. By this time many of the garrison had assembled at the place, who, by throwing javelins and stones, beat down the enemy, so that the whole band, unable to keep either their hold or footing, were hurled down the precipice in promiscuous ruin."—*Livy*, lib. v. cap. 47—*Baker's Translation.*

Lucretius, referring to this event (lib. iv. 686) attributes the vigilance of the Geese to their fine sense of smell:—"The White Goose, the preserver of the citadel of the descendants of Romulus, perceives at a great distance the odour of the human race."

Virgil, alluding to the same occurrence, (Æn. viii. 655,) ascribes the preservation of the capitol to an "Argenteus Anser" (a Silver Goose). Both these poets, therefore, inform us that the Domestic Goose of their day differed as much from the Gray-leg or the White-fronted, as it does at present, a circumstance which the reader is requested to bear in mind.

Pliny, about four hundred years later, remarks, (lib. x. 26,) "The Goose is carefully watchful; witness the defence of the capitol, when the silence of the dogs would have betrayed every thing. . . . . It is possible, also, that they may have some discernment of wisdom. Thus, one is said to have stuck perpetually to the Philosopher Lacydis, never leaving him, either in public, in the baths, by night, or by day." And again, at xxvii.—"Our folks are wiser, who are aware of the goodness of their liver. In those that are crammed it increases to a great size; when taken out, it is laid to swell in milk mixed with honey. And it is not without cause that it is a matter of debate who was the first to discover such a dainty, whether Scipio Metellus, of consular dignity, or M. Seius, a Roman knight at the same epoch. But (what is certain) Messalinus Cotta, the son of Messala, the orator, discovered the method of cooking the web of their feet, and fricasseeing them in small dishes along with Cocks' combs. I am ready heartily to attribute the merit to the kitchen of either. It is wonderful that this bird should travel on foot from the Morini (in the north of France) to Rome. Those which are tired are carried to the front; so that the rest push them on by a natural crowding. . . . . In some places they are plucked twice a year."

A great deal of this is the same as has happened with us, with a slight change of names and places.

It is very natural to inquire whence so remarkable and valuable a bird was originally obtained; but the conclusion generally arrived at, appears to me, to be inconsistent, not merely with truth, but even with probability—namely, that it results from the crossing and intermixture of several wild species. None of these ancient accounts indicate any such fact; but, on the contrary, declare that the Domestic Goose was in the earliest ages (dating with respect to Man) exactly what it is now. The very same arguments that are used to show that the Domesticated Goose is a combination of the Gray-legged, White-fronted, and Bean Geese, would equally prove that the Anglo-Saxon race of Men is derived from a mixture of the Red Indian, the Yellow Chinese, and the Tawny Moor. I cannot, therefore, help suspecting very strongly that we shall err in referring the parentage of the Common Goose to *any* existing species. Mr. Yarrell hesitatingly says, that "the Gray-legged Goose is considered to be the origin from which our valuable domesticated race is derived;" and instances the union of a pinioned wild Gray-legged Gander with a Domestic Goose that had been assigned as his mate.* But those who have kept many different species together, well know what unaccountable attachments they are frequently forming, and that they are quite as likely to pair, and rear young, with individuals of a race apparently the most alien to themselves as with their own stock. Indeed, among Geese, it will be difficult to de-

* These birds have produced young, which, by breeding in-and-in, have again produced young resembling themselves; thus giving support to Mr. Yarrell's conjecture. I record the fact. Many readers may think it opposed to the views here expressed: it is the only one I have ever met with at all tending to contradict them.

fine the limits of species, at least if the fertility or infertility of hybrids be the test.

But the supposition that all our domesticated creatures must necessarily have an *existing* wild original, is a mere assumption; and it has misled, and is likely to mislead, investigators as far from the truth as did the old notion about fossil organic remains, that they were Lithoschemata, as Aldrovandus has it, sketches in stone, abortive efforts of Nature, imperfect embryos, instead of fragmentary ruins of a former state of things. Some naturalists seem already to have had misgivings that such a theory respecting domestic animals is not tenable. According to the Rev. L. Jenyns,—

"The Domestic Goose is usually considered as having been derived from the Gray-legged Goose, but such a circumstance is rendered highly improbable from the well-known fact that the Common Gander, after attaining a certain age, is invariably (?) white. Montague, also, observes that a specimen of the *Anser ferus*, which was shot in the wing by a farmer in Wiltshire, and kept alive many years, would *never associate* with the tame Geese. In fact the origin of this last is unknown."—*Jenyns's Manual of Vertebrate Animals*, p. 222.

The origin of the Domestic Goose is indeed unknown, if we look to Man, or his influence, to have originated so valuable and peculiar a species; but not unknown, if we believe it to have been created by the same Almighty Power who animated the Mammoth, the Plesiosaurus, the Dinornis, and the Dodo. For let us grant that the Gray-legged Goose is the most probable *existing* parent of the domestic sort. Now, even that is becoming a rare bird; and the more scarce a creature is in a wild state, the scarcer it is likely still to become. Suppose the Gray-legged Goose extinct; by no means an impossibility. Then those who *must* have a wild original from which to derive all our domestic animals would be compelled to fall back on some other species still less probable. It is surely a simpler

theory to suppose that creatures that were cotemporary with the Mammoth, have, like it, disappeared from the earth in their wild state, but have survived as dependents on Man, than to engage in attempts at reconciling incongruities and discrepancies, which, after all, cannot satisfy the mind, but leave it in as doubtful a state as ever.

Still less is the White-fronted the ancestor of the Domestic Goose. Entirely white specimens of the *Albifrons* are indeed occasionally hatched in confinement, and the Common Goose may now and then exhibit traces of an *admixture* or dash of blood with it, as it certainly does, occasionally, of a cross with the China Goose *(Cycnoïdes)*; but these are mere impurities, which wear out, and the race returns to the well-known domestic type. And it will be allowed by most persons who have possessed a variety of these birds, and who have watched and tended them day by day, that the Domestic Goose is sufficiently separated from the Gray-legged by the colour of its feet and legs; from the White-fronted by the extreme difference of its voice, manner, time of incubation, colour of the eyes, greater thickness of neck, convexity of profile, and many other little particulars that are more easily perceived than described.

It might be urged, as a further essential difference, that the Domestic Goose is polygamous, whereas all Wild Geese that we are acquainted with are monogamous. It is true that Wild Geese, in captivity, will couple with the females of other species; but that takes place by their utterly neglecting their own mate for the time, not by entertaining two or more mistresses at once. It will be replied, that habits of polygamy are the effects of domestication; but what proof have we of such an assertion? Domestication has not yet induced the Pigeon and the Guinea Fowl to consort with more than one partner; and the Swan, called Domestic by some writers, remains obstinately and even fiercely faithful in its attachments.

The Domestic Gander is polygamous, but he is not an indiscriminate libertine: he will rarely couple with females of any other species. Hybrid common Geese are almost always produced by the union of a Wild Gander with a Domestic Goose, not *vice versâ*.

Of the Domestic Goose there really is but one variety, individuals of which are found varying from entirely white plumage, through different degrees of patchedness with gray, to entirely gray colouring, except on the abdomen. The Ganders are generally, not invariably, white. Such are sometimes called Embden Geese, from a town of Hanover, famous also for groats. Fine white Geese may doubtless be hatched at Embden, as well as in Middlesex, and, if actually imported, may claim the name of their native place, but cannot on that account be allowed to form themselves into a separate clan. High feeding, care, and moderate warmth, will induce a habit of prolificacy, which becomes in some measure hereditary. The season of the year at which the young are hatched (and in England they may be reared at any season) influences their future size and development. After allowing for these causes of diversity, it will be found that the Domestic Goose constitutes only one species or permanent variety.

Mr. Bagshaw, of Norwich, annually fats several thousand Geese for the London market. He has sometimes as many as two thousand Geese at once on his extensive premises. The birds are collected from all parts, wherever, in short, they can be most advantageously obtained. Some are English, more are from Holland, but the greater part are procured from Prussia. Having been obligingly permitted to inspect this vast assemblage, I could find nothing that had the least claim to be called a variety, though they came from so many different quarters. The nearest approach to it was that some had bills of a dull black, others had the *nail* of the bill black, others again had it white, but there was nothing either in

form, voice, gait, or attitude, to afford the least suspicion that there exists any sub-species of the Domestic Goose. One bird was pointed out by the proprietor as differing from the rest. He was a half-bred with the China Goose.

The Toulouse Goose, which has been so much extolled and sold at such high prices, is only the common domestic, enlarged by early hatching, very liberal feeding during youth, fine climate, and perhaps *by age*. I am in possession of Geese, hatched at a season when it was difficult to supply them with an abundance of nourishing green food, that are as much under-sized as the Toulouse Goose is over-sized; they are all Domestic Geese, nevertheless. It is for the sake of enlarging the growth of the Goslings, not for the mere purpose of supporting their strength, that the breeders cram them night and morning with flour-and-egg pellets. Grass alone would suffice for their sustenance, but extra nourishment makes extra-sized birds. Toulouse Geese are fine, six foot high, grenadier individuals of the Domestic Goose—that is all. Some were to be seen not far from the Horse Guards, in proximity to their human representatives, in the autumn of 1848.

The importance of feeding all growing creatures abundantly and well, cannot be too often forced upon the attention of the breeder, whether of fowls or quadrupeds. A pertinent illustration of its effects, even upon Man, is given by the Rev. John Williams, in his "Missionary Enterprises," p. 512. "The men are strong and tall, being frequently upwards of six feet high, with limbs firm and muscular, but not heavy and clumsy. This is especially the case with the chiefs, and more remarkably so with those of Tongatabu and the Friendly Islands, whose form and bearing are as stately as their movements are natural and free. The women are inferior to the men; but yet they often present the most elegant models of the human figure.

"Captain Cook attempted to account for the superior size

of the chiefs, by supposing that they were a distinct race; but in this we think he was incorrect. It may, perhaps, be attributed in part to their progenitors, who were probably raised to the chieftainship on account of their physical superiority, or of some achievements which resulted from it; partly to their mothers, who were generally selected by the chiefs for their form and stature; and partly to their treatment during the years of childhood and youth. As soon as the son of a chief was born, two or three of the finest and most healthy women were selected to nurse it; and while performing this office, which they frequently did for three years, they were provided with abundance of the best food. A child of Tinomana, of Rarotonga, had four nurses, and he was a little monster. With this commencement, their subsequent training corresponded. I think these causes sufficient to account for the superiority of the chiefs, many of whom are certainly splendid specimens of human nature." We think similar causes sufficient to account for the superior size of the Toulouse Geese, which really do look like common Geese as they would appear if seen through the long-focused magnifying glass of a raree-show.

The following will be pronounced a mere case of malformation, not the springing up of a new variety

"I have noticed that in a flock of Geese here, from which many Goslings are reared every season, there is always one bird, and sometimes two, with the two farthest joints of one wing growing as if they had been twisted round, out of their proper position. None of the old Geese have this peculiarity, nor, as far as I can ascertain, does it arise either from ill-treatment or the forcing themselves through narrow places. It seems rather to be a natural *lusus* of the wing joint, and one would think must effectually prevent their flying."—*H. H.*

The value and usefulness of Geese is scarcely calculable. We omit what is owing to them, as having furnished the most

powerful instrument wielded by the hand of Man. But in a mere material point of view, and reckoning on the very smallest scale, we will suppose that a village green supports only fifty brood Geese. The owners of these would be dissatisfied if they got but ten young ones from each in the year, besides Eggs; this gives five hundred Geese per annum, without taking the chance of a second brood. Multiply five hundred by the number of village greens in the kingdom, and we still form a very inadequate estimate of the importance of the bird. And all this with scarcely any outlay. The little trouble they demand, of being secured at night and let out in the morning, of setting the Geese, and "pegging" the Goslings, is a source of amusement and interest to thousands of aged and infirm persons, in whose affections their Geese stand second only to their children and relations. What a pity it is that such cheerful commons should be ever converted into barren thickets and damp Pheasant covers, to afford a school for young sportsmen and rural policemen to practise their several arts in.

The only damage they do, lies in the quantity of food they consume; the only care they require, is to be saved from thieves and starvation. All the fears and anxieties requisite to educate the Turkey and prepare it for making a proper appearance at table, are with them unnecessary; grass by day, a dry bed at night, and a tolerably attentive mother, being all that is required. Roast Goose, fatted, of course, to the point of repletion, is almost the only luxury that is not thought an extravagance in an economical farm-house; for there are the feathers, to swell the mistress's accumulating stock of beds; there is the dripping, to enrich the dumpling, pudding, or whatever other farinaceous food may be the fashion of the country for the servants to eat; there are the giblets, to go to market or make a pie for a special occasion, and there is the

wholesome, solid, savoury flesh for all parties in their due proportion.

They are accused, by some, of rendering the spots where they feed offensive to other stock; but the secret of this is very simple. A Horse bites closer than an Ox, a Sheep goes nearer to the ground than a Horse, but, after the sharpest shaving by Sheep, the Goose will polish up the turf, and grow fat upon the remnants of others. Consequently, where Geese are kept in great numbers on a small area, little will be left to maintain any other grass-eating creature. But if the commons are not short, it will not be found that other grazing animals object to feed either together with, or immediately after a flock of Geese.

Many instances of the longevity of the Goose are on record, and it is needless to repeat them. I have myself seen one upwards of thirty years of age, followed by a thriving family; but they are capable of reaching double and treble that extent of life. Indeed, the duration of the existence of the Goose seems to be indefinitely prolonged, and not terminable by the usual causes of decay and old age, (like Pliny's Eagle, which would live for ever, did not the upper mandible become so excessively curved as to prevent eating, and cause death from starvation;) and reminding us of the accounts, apparently not fabulous, which we hear in these modern times, respecting the Pelican and the cartilaginous fishes. One thing is certain, that housewives do not consider Geese to be worth much for breeding purposes, till they are four or five years old. They will lay and produce some few young ones in the course of their second summer; but older birds fetch much higher prices as stock. Three or four Geese may be allotted to one Gander; the male bird is known by being, *generally*, white, and also by his bold and patronizing carriage. He is an attentive sentinel while his dames are incubating, but renders them no personal assistance by taking his turn upon the nest—an error

which seems to have originated with Goldsmith. When the young at length go forth to graze, he accompanies them with the greatest parental pride and assiduity.

The Goose has the additional merit of being the very earliest of our Poultry:—

> "On Candlemas day
> Good housewife's Geese lay;
> On Saint Valentine
> Your Geese lay, and mine."

In three months, or at most four, from leaving the Egg, the birds ought to be fit for the feather-bed, the spit, and the pie. It is better, either to eat them at this early stage as green Geese, or, to keep them another six months, till after they have moulted and renewed their feathers, when they can be fatted till they grow into the ponderous, satisfactory succulent joint which suits a healthy Michaelmas or Christmas appetite. It will be found unprofitable to kill them between these two epochs of their life. They will be fatted by being shut up in society, in a clean, quiet out-house, with plenty of dry straw, gravel, and fresh water, and are there to be supplied for a certain length of time, continued according to the weight desired to be laid on, with all the barley or oats they can eat. The kind of grain used depends upon custom or convenience, some advocating barley, others oats; a mixture might perhaps be the most effectual. Barley-meal and water is recommended by some feeders; but full-grown Geese that have not been habituated to the mixture when young, will occasionally refuse to eat it. Cooked potatoes, in small quantities, do no harm. A first-rate delicacy, though rather expensive, would be produced by following Penelope's system of feeding, and giving the birds steeped wheat.

The Goose is not only very early in its laying, but also very late. It often anticipates the spring in November, and after-

wards, when spring really comes in March, it cannot resist its genial influence. The autumnal Eggs afford useful employment to Turkeys or Hens that choose to sit at unseasonable times: and the period of incubation, thirty days, is less tedious than that required for the Eggs of China Geese or Musk Ducks. A dry, airy lean-to or shed, and the gleanings of a kitchen-garden, are all that are needful to rear the young. Their great enemy will be the cramp, which may be kept off by making them sleep on dry straw, and turning them out with their mother for an hour or two every mild and open day. When winter Goslings are expected, a Michaelmas planting (not sowing) of lettuce and endive should be made; the latter will be found particularly serviceable, as also the tender parts of turnip tops. A living turf laid down in the out-house and changed occasionally, will be relished. A little boiled rice, daily, assists their growth, with corn, of course, as soon as they can eat it. A rushlight burnt in a Goose-house during the fifteen or sixteen hours of darkness in winter, has been successfully employed to induce the Goslings to eat. And when it is remembered that the candle costs the fraction of a penny, while an early green Goose is worth from seven shillings to half a guinea, it will be seen that the expense is not thrown away. Almost all breeders of Goslings administer, by cramming, long half-dried pellets, composed of raw Egg and wheat flour; it is an old practice, but is unnecessary, except during midwinter.

We give Columella's directions for rearing:—

"And the Gosling, while he is very little, is shut up in a pen for the first ten days, and fed along with his mother: afterwards, when the fine weather permits, he is led forth into the meadows, and to the fish-ponds. And care must be taken that he is neither stung by nettles, nor sent fasting to the pasture, but has his appetite satisfied beforehand with chopped endive or lettuce leaves. For if he goes to pasture still weak

and hungry, he tugs at the shrubs and more solid herbs so pertinaceously as to break his neck."—*Columella*, lib. viii. chap. xiv. The Roman school of poulterers were in great fear of nettles for their Goslings, and as a counter-irrative remedy, it was proposed to place nettle-roots under the sitting Geese; but one would say that the nettles, not the Goslings, had the greatest reason for alarm.

Geese are slaughtered by being bled from the internal parts of the throat,—a slow and cruel method. They, as well as Ducks, should be let out to the pond a few hours before execution, where they will purify and arrange their feathers as neatly as if they were going to their wedding instead of to their death. Adult birds are almost exempt from disease. When three-quarters grown, they occasionally, though not often, "go light," as the country people call it, and waste and die like a person in a consumption. This usually happens only with birds that are shut up too closely to fat. The remedy is liberty and grass.

I have seen the shell of a Goose's Egg that had contained *three* yolks.

The flight of the Domestic Goose is quite powerful enough, especially in young birds, to allow them to escape that way, were they so inclined. In the autumn, whole broods may be seen by early risers, taking their morning flight, and circling in the air for matutinal exercise, just like Pigeons when first let out of their locker.

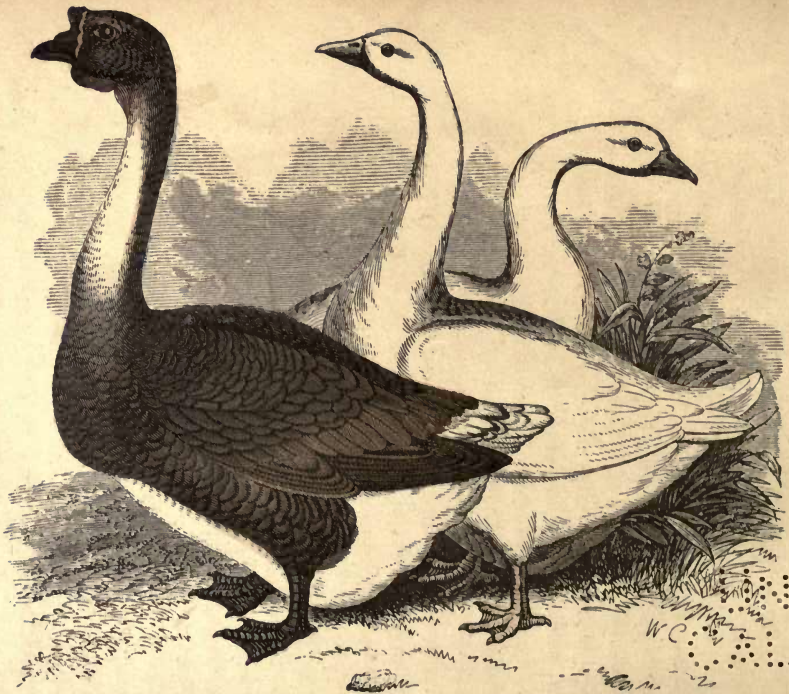
CHAPTER XXVIII.

THE CHINA GOOSE.

Of this variety, three beautiful specimens were exhibited at the late Agricultural Show, held in the county of Philadelphia. They were owned by a gentleman, whose name I forget, living in the vicinity of Tacony, near this city. In introducing this variety to the reader, Mr. Dixon says :—

There is a venerable joke about a Spanish Don, who knocked at a cottage door to ask a night's lodging. "Who's there? What do you want?" said the inmates. "Don Juan José Pedro Antonio Alonzo Carlos Geronimo, &c., &c., &c., wants to sleep here to-night." "Get along with you," was the reply: "how should we find room here for so many fellows?" The China Goose is in the same position as the Spanish Don. It has names enough to fill a menagerie. China Goose, Knob Goose, Hong-Kong-Goose, Asiatic Goose, Swan Goose, Chinese Swan, (*Cygnus Sinensis*, Cuvier,) Guinea Goose, Spanish Goose, Polish Goose, Anas and Anser cygnöides, Muscovy Goose, and probably more besides.

Confusion, therefore, and perplexity, are the certain lot of whosoever attempts to trace this bird in our books of natural history. Its place of birth has excluded it from all monographs or limited ornithologies. In very few systematic works is it mentioned at all, which is remarkable of a bird so striking in its appearance, which there is every reason to be-



THE HONG KONG, OR CHINA GOOSE. COL. JACQUES' BREMEN GEESE.

UNIV. OF CALIFORNIA

lieve must have been domesticated for a long period. The uncertainty that has existed as to its correct name, and really native country, may be one cause of this. Like the Jews or the Gipsies, it has not been allowed to claim a place among the natives of any one region; and, like many others furnished with a variety of aliases, it ends by being altogether excluded from society.

The old writers call it the Guinea Goose, for the excellent reason, as Willughby hints, that in his time it was the fashion to apply the epithet "Guinea" to every thing of foreign and uncertain origin.* Thus, what we at this day erroneously call the Muscovy Duck, was then called the Guinea Duck. Not long back it was common with us to refer every strange or new object to a French source. Spanish Goose is another title, probably as appropriate as Guinea Goose. Bewick has given an admirable wood-cut of this bird, but he has evidently selected the Gander, which is taller and more erect than the female, though to both may be applied Willughby's description, "a stately bird, walking with its head and neck, decently erected." Bewick calls it the Swan Goose. The tubercle at the base of the bill, the unusual length of neck, and its graceful carriage in the water, give it some claim to relationship with the aristocracy of lake and river. Cuvier (Griffiths' edition) goes further, calls it at once *Cygnus Sinensis*, Chinese Swan, and says that this and the Canada Goose cannot be separated from the true Swans. A Goose, however, it decidedly is, as is clear from its terrestrial habits, its powerful

* The epithet "Indian" has also answered the same accommodating purpose. "The lesser kind I conjecture to be the right *Mambrine* or *Syrian* Goat, although some of the late writers call it an Indian Goat; the reason is, because (as hath beene said) they cal al strange beasts by the names of Indians, if they find them not in their owne countrey."—*Topsell's History of Foure-footed Beasts*, p. 236.

bill, its thorny tongue, and its diet of grass. And therefore we have determined to call it the China Goose, concluding that Cuvier is right about its home,* and other authors about its goosehood.

There is something in the aspect of this creature, the dark-brown stripe down its neck, its small bright eye, its harsh voice, its ceremonious strut, and its affectation of seldom being in a hurry, which seems to say that it came from China. It would perfectly harmonize in a picture of Chinese still life; or in a Chinese garden, with artificially arranged rocks, dwarf trees, crooked trellises, and zigzag pathways; or, in a more extended landscape, it would group well on a broad river, beside a boat filled with shaven fishermen, with their trained cormorants and pig-tailed children. If it does come from China, it has no doubt been domesticated for many hundred years, perhaps as long as the Peacock or common Fowl. They may be made to lay a large number of Eggs by an increased supply of nourishing food. This is very different from the disposition to "lay everlastingly," as seen in the Guinea Fowl, and some varieties of the domestic Hen—the Black Spanish for instance; because the China Goose does in the end feel a strong desire to incubate as soon as her protracted laying is done, whereas entire exemption from the hatching fever is the great merit of the "everlasting layers." If liberally furnished with oats, boiled rice, &c., the China Goose will in the spring lay from twenty to thirty Eggs before she begins to sit, and again in the autumn, after her moult, from ten to fifteen more. I have never observed any disposition to sit after the autumnal laying. It is not, as in the Guinea Fowl, a spontaneous flow of Eggs, for which the ordinary diet

* In journeying overland, (in books of Travels,) we meet with the Swan Goose more frequently as we approach Tartary and China.

of the creature is sufficient, but is as much dependent on feeding as the fatness to which a bullock is brought. A Goose that I supplied with as much oats as she could eat, besides grass, potatoes, and cabbages, laid Eggs larger than ordinary; one of them (with a double yolk) weighed seven and a half ounces, nearly half a pound. I need hardly say that double-yolked Eggs are very rare, except among birds that are highly fed.

Another peculiarity is their deficient power of flight, compared with the rest of their congeners, owing to the larger proportionate size of their bodies.* The common Domestic Goose flies much more strongly than its brother from China. Indeed, of all Geese this is the worst flyer. There is no occasion to pinion *them*. While the Canada Goose thinks little of a journey from the North Pole or thereabouts to Great Britain, while the Egyptian Goose pays us occasional visits from Africa, while the merry little Laughing Goose, if tamed,

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* "In opposition to this statement, permit me to say, that the China Geese, if true bred, fly very well, at a considerable height and long distances. As a proof that they fly, many years since, a labourer coming to his work at Capesthorne, near Macclesfield—Mr. Davenport's—found an Egg on the grass in the park evidently dropped by some bird that had flown over, as no such Geese were known there. The Egg was set, and produced a Chinese Goose, which lived more than twenty years, having died about three years since, apparently of old age. I have often seen the Goose, and sent a China Gander to solace her declining years, but she would not allow him to come near her. Last year, I used often to admire the fine sweeping flights of five of this breed near my house. I am quite sure as to many of this breed flying quite well and strong."—*W. D. F.* I can only account for this by the fact that there are more varieties of the China Goose than is commonly suspected, as nothing like the power of flight here described, the truth of which cannot be doubted, has ever fallen under my own observation, at home or elsewhere.

and allowed the use of its wings, is almost as much at ease in the air as a Pigeon, the Chinese Goose can hardly manage to flutter across a lawn, to get out of the way of a frisky spaniel.

"Said the Tame Goose to the Wild one, 'On such a day I shall fly away.' Said the Wild Goose to the Tame one, 'I shall fly away on such a day, if it be the will of Allah.' At the appointed time the Wild Goose performed her yearly migration; the Tame Goose cannot fly to this day." If China, instead of Egypt, had produced the above fable, we should believe that the Anas cygnöides was the vain, boastful bird.

The large number of Eggs laid by these birds has led some persons to imagine that, like Guinea Fowls, they were inexhaustible, so that when at last the Goose did make her nest in earnest (which may be known by her mixing her own down with the straw) no Eggs had been reserved for the poor thing to sit upon. The best plan is to date the Eggs with a pencil, as they are laid, and to consume only those which are more than three weeks old. They are usually very late with their broods, but will rear them well enough if they are allowed to take their own time, and do it after their own manner. My China Goose has now (June, 1848) laid thirty Eggs, without intimating any intention of sitting, but she has annually brought off a family for the last five years, and I doubt not she will again this season. When the fit comes, she will take possession of her milk-pan, which stands in a large boarded coop, like a dog-kennel. Once duly enthroned there, she will maintain her seat with proper perseverance and tenacity. A neighbour discarded his China Goose because she was always found standing over her Eggs, instead of sitting upon them. But those were only the preliminaries, the overture to the performance. Hurry no man's cattle; and you may as well try to hurry the Emperor, as the Goose of China. Their time of incubation is five weeks. I have always found them steady sitters when they once begin in earnest, and exemplary parents.

The Goose, on leaving her nest to feed, covers her Eggs carefully. Any difficulty in rearing them results from want of proper management. If, for instance, when the bird does at length sit, she is insufficiently supplied with Eggs, or with those which have been kept too long; or if she be permitted to be disturbed by dogs, &c.; if she be suffered to steal a nest, and sit on more than she can cover—things will go wrong. The great number of Eggs laid may perhaps cause an uncertainty that each one is properly fecundated. A China Goose, after sitting a fortnight, was driven from her nest by a sow that had been permitted to get loose: the Eggs were eaten, shells and all, and the poor bird expressed her agony of mind, both by her cries and actions. After she became a little calm, her nest was re-made and supplied with fresh Eggs. She continued to sit for three weeks longer, as well as could be. At the end of the usual period of five weeks, she gave up her task as useless, believing the Eggs to be addled, which they were not; and we unfortunately knew no language by which we could persuade her that if she would only persevere for another fortnight, the reproach of barrenness would be taken away from her.

These are annoying cases to practical ornithotrophists. But even here the difficulty need not have been insurmountable; and where there's a will there's a way. A worthy old couple had the misfortune to have their sitting Goose killed in one of her daily promenades, a few days before the Goslings were ready to leave the shell. What was to be done? The Eggs were cooling fast; no time was to be lost. Difficult emergencies excite brilliant efforts of genius. In an instant the old man was undressed and in bed. To him the orphan Eggs were transferred. When he grew tired of his lying-in, the old lady took her turn, till the Goslings were safely hatched.

The prevailing colour of the plumage of the China Goose is a brown, which has aptly been compared to the colour of wheat. The different shades are very harmoniously blended,

and are well relieved by the black tuberculated bill, and the pure white of the abdomen. Their movements on the water are graceful and swan-like. It is delightful to see them, on a fine day in spring, lashing the water, diving, rolling over through mere fun, and playing all sorts of antics. Slight variations occur in the colour of the feet and legs, some having them of a dull orange, others black: a delicate fringe of minute white feathers is occasionally seen at the base of the bill. These peculiarities are hereditarily transmitted. But the White China Goose, if it be not specifically distinct, is a variety so decidedly marked as to demand a separate notice.

The male is almost as much disproportionately larger than the female as the Musk Drake is in comparison with his mate. He is much inclined to libertine wanderings, without, however, neglecting to pay proper attention at home. If there is any other Gander on the same premises, they are sure to disagree: one of the two had better be got rid of. Both male and female are, perhaps, the most noisy of all Geese: at night, the least footfall or motion in their neighbourhood is sufficient to call forth their clanging and resonant trumpetings. This, to a lone country-house, is an advantage and a protection. Any fowl-stealer would be stunned with their din before he captured them alive, and the family must be deaf indeed that could sleep on through the alarm thus given. But by day it becomes a nuisance to the majority of hearers, and has caused them to be relinquished by many amateurs. One is inclined to address them as O'Connell did the uproarious fellow who was interrupting his speech, "I wish you had a hot potato in your mouth." Or they might take a lesson from Ælian's Geese:—"The Geese, when shifting about Mount Taurus, are afraid of the Eagles, and each one of them, taking a stone in its mouth, that they may not cry out, as if putting a gag upon themselves, fly through their course in silence, and in this manner generally quite escape the notice of the Eagles."—

Book v. chap. 29. We, however, prefer that our Geese should silence themselves with grass and corn.

The Eggs of the China Goose are somewhat less than those of the domestic kind, of a short oval, with a smooth thick shell, white, but slightly tinged with yellow at the smaller end. The Goslings, when first hatched, are usually very strong. They are of a dirty green, like the colour produced by mixing Indian ink and yellow ochre, with darker patches here and there. The legs and feet are lead-colour, but afterwards change to a dull red. If there is any thing like good pasturage for them, they require no further attention than what their parents will afford them. After a time a little grain will strengthen and forward them. If well fed, they come to maturity very rapidly. In between three and four months from the time of their leaving the shell, they will be full-grown and ready for the spit. They do not bear being shut up to fatten so well as common Geese, and therefore those destined for the table are the better for profuse hand-feeding. Their flesh is well-flavoured, short, and tender; their Eggs are excellent for cooking purposes. I have heard complaints of their being a short-lived species, from good authority, and that the Ganders at least do not last more than ten or a dozen years. The instance above-mentioned does not show them to be long-lived. I cannot verify the facts, as my own experience with these birds extends only to about eight years; but it is quite in opposition to the longevity ascribed to other Geese. Hybrids between them and the common Goose are prolific with the common Goose; the second and third cross is much prized by some farmers, particularly for their Ganders:* and in many

*"I can warmly recommend the cross of the China Gander with the common Goose, as producing finer birds and of much finer flavour; I have kept them for years. Indeed, I like the cross better every season, and have given Ganders to several friends to adopt the same

flocks the blood of the China Goose may often be traced by the more erect gait of the birds, accompanied by a faint stripe down the back of the neck. With the White-fronted Goose they also breed freely.

In the very clear and useful "Manual of British Vertebrate Animals," by the Rev. Leonard Jenyns, this bird is recorded as Cygnus Guineensis, or Guinea Swan, another synonyme; though it is hesitatingly added, "Native country somewhat doubtful."

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plan."—*W. D. F.* "They frequently couple with our tame *Geese*, and produce a bastard kind between both; they are excellent meat when young and fat, being of a different and pleasant taste from that of the *common Goose*."—*Albin*, vol. i. p. 87.

"I cannot say that I admire the edible qualities of the Canada Swan, for such it properly is. We tried one here a few years back, and only voted it, I believe unanimously, extremely good for nothing. The knob-fronted, or Swan Goose, is really a good bird, and I have known some families which regularly kept them for the table in preference to the common bird."—*E. of D.*

"In the government of Penda, all kinds of Poultry are of a large size; the Geese are mostly of a spurious breed from the Chinese, or those with a swan-neck; and in every village Pigeons fly about in abundance."—*Pallas, South Russia*, vol. ii. p. 18.

CHAPTER XXIX.

THE BREMEN GOOSE.

THE following communication was kindly furnished me by Samuel Jáques, Jr., Esq., accompanied with portraits of his beautiful Bremen Geese. This, and the Chinese or Hong Kong variety, may be regarded as standing at the head of their class.

Ten Hills Farm, near Boston, Mass., Dec. 12th, 1850.

J. J. KERR, M. D.:

Dear Sir,—My father—Col. Samuel Jáques—has had intimation from his friend, Dr. Eben Wight, of Boston, that you were about to publish a work on the subject of Domestic Fowls, Birds, &c., and that you would be pleased to receive from my father some information relative to his Bremen Geese—a name they have received in consequence of their having come from that place originally. I have my father's notes to guide me in making the following statements, as well as his approbation that you should be furnished with them.

In the winter of 1820, a gentleman, a stranger, made a brief call at my father's house; and, in course of conversation, casually mentioned, that, during his travels in the interior of Germany, he had noticed a pure white breed of Geese, of unusual size, whose weight, he supposed, would not fall much short of twenty-five pounds each, providing they were well fed and managed. At that period, a friend of my father's—the

late Eben Rollins, Esq., of Boston—kept a correspondence with the house of Dallias & Co., in Bremen, and at his request, Mr. Rollins ordered, through that firm, and on my father's account, two Ganders and four Geese, of the breed mentioned by the stranger gentleman. The Geese arrived to order in Boston, in the month of October, 1821; and I append a copy of "Directions relative to the Geese from Bremen," given to the captain of the ship in which they arrived. I hold the original in my possession; and transcribe it *verb. et lit.*:—

"*Emden*, 17*th August*, 1821.

"The captain who is to take over these six Geese will find the cages a little large; however, it is necessary that their lodgings be sufficient wide, if they shall arrive sound in America. Two Geese which were sent to Bremen last year in a small box, died on their arrival there; being water-birds, they want a much more careful management than Fowls; they ought to have constantly fresh water in abundance; a quantity of good sand and muscle scells, (shells,) serving for their digestion, must be put into their feed-box; there ought to be always sand and straw below in their cage for litter; also above the cage, as the birds perish otherwise by insects. The Geese must be feeded; they used to pick the straw from above down to the feet. The Geese must be feeded with good clean oats, and sometimes with cabbage leaves."

Ever since my father imported the Bremen Geese, he has kept them pure, and bred them so to a feather—no single instance having occurred in which the slightest deterioration of character could be observed. Invariably the produce has been of the purest white—the bill, legs, and feet, of a beautiful yellow. No solitary mark or spot has crept out on the plumage of any one specimen, to shame the true distinction they deserve of being a pure breed: like, with them, always has produced like.

The original stock has never been out of my father's possession; nor has he ever crossed it with any other kind, since it was imported in 1821.

I find, by reference to my father's notes, that, in 1826, and in order to mark his property indelibly, he took one of his favourite imported Geese, and, with the instrument used for cutting gun-waddings, made a hole through the web of the left foot. This was done on the 26th June: and now, in 1850, the same Goose, with the perforation in her foot, is running about his poultry-yard, in as fine health and vigour as any of her progeny. She has never failed to lay from twelve to sixteen Eggs every year, for the last twenty-seven years, and has always been an excellent breeder and nurse, as has all of the stock and offspring connected with her. I had the curiosity to weigh one of her brood of 1849, when nine months old exactly, and his weight, in feather, sent up 22 lbs. in the opposite scale. This hugeous *Anser* has been preferred to breed from, the coming season.

In 1832, a bull-dog killed several of my father's Geese, and, among them, the two Ganders originally imported. For the last eighteen years he has bred by his young Ganders—putting them indiscriminately to parents and sisters—and reserving the best of the produce, male and female, for breeding. In so doing, he has never experienced any deterioration in weight, feather, or stamina, as has been exemplified in the above-mentioned instance of the nine-months old Gander, so produced, and whose food was almost exclusively grass.

As quality of flesh, combined with weight, is a main consideration, I wish to mention, regarding the former, that the flesh of the Bremen Goose is very different from that of any of our best domestic varieties. It does not partake of that dry character which belongs to other and more common kinds, but is as tender and juicy as the flesh of a wild Fowl; besides, it shrinks less in the process of cooking, than that of any other

Fowl. Some of the keenest epicures have declared that the flesh of the Bremen Goose is equal, if not superior, to that of the celebrated Canvas-back Duck. There is assuredly some comfort, not uncombined with ease, in carving a bird that weighs seventeen pounds, and taking a slice from the breast, so long as to be obliged to cut it into two, that one-half may cover no more than the width of a common dinner-plate.

The Bremen Goose inclines to commence laying at an earlier period than this northern latitude favours, which is in the latter part of February. To give the young fair play, it is not advisable that hatching should be finished before the first of June. The mode of prevention used by my father is as follows:—

The whole of the breeding stock, male and female, are put into a dark room—say about the twentieth of February—and kept there until about the tenth day of April. When in durance they are well fed once a day with corn, and allowed sufficient water all along to drink. Once a week they are allowed to get out for one hour, to wash and plume themselves, and are then shut up again. While thus confined, they lose the inclination to breed, and do not assume it while they are kept shut up; but, in eight or ten days after they are set at liberty, the disposition returns, and they commence laying.

The mode adopted by my father to bring the broods of Goslings forth in one day, is as under, and has been followed by him for many years, with unvarying results. In 1840, he had four Ganders and ten Geese for breeding purposes. At that time, he had as many as thirty milk Cows in one stable, the large door of which opened upon the farm-lane. Directly in front of this door, he had his boxes, or nests, in which the Geese laid their Eggs. These boxes I will describe in course. The man who had charge of the Cows, had also the care of the Geese, and he worked by the following instructions. First: the Geese were to be carefully and properly fed. Secondly: the Eggs were to be removed in the most gentle manner, every

day, from the nests, and placed in a basket of cotton, which was kept in a moderate temperature and free from damp. When all the Geese had begun to sit steadily, each was furnished with a nest composed of chopped straw, and care was taken that the nest was sufficiently capacious. The Eggs were then set, and the Geese allowed to sit upon them.

Strict attention was enjoined upon the attendant, not to allow more than one of the Geese to leave her Eggs at a time. As soon as one leaves the nest, she makes a cackling noise, which was to be the signal for the man in attendance to go and shut up the boxes in which the remainder were sitting; consequently, when the Goose returned, she found only her own box open. So soon as she had entered, the whole of the doors were again opened, and the same rule observed throughout the period of hatching. In following this style of management, every Goose was kept to its own nest. There were one hundred and twenty Eggs set altogether, twelve to each of the ten breeding Geese before alluded; and at the end of four weeks, which is the usual period of incubation, there were eighty-eight Goslings produced, all in one day, and they formed a beautiful sight.

When first hatched, the Goslings are of a very delicate and tender constitution. My father's general practice, is to let them remain in the box in which they were hatched for twenty-four hours after they leave the shell; but he regulates this by the weather, which, if fair and warm, may tolerate the letting the Goslings out an hour or two in the middle of the day, when they may wet their little bills, and nibble at the grass. They ought not to be out in the rain at any time during the first month. A very shallow pool, dug in the yard, with a bucket or two of water thrown into it, to suit the temporary purpose of bathing, is sufficient during the period named.

The practice of feeding my father follows, is not to give the Goslings any grain whatever, after they are four days old, until

snow falls, when they require to be fed on corn for a time. He thinks, however, that if well fed on grain from the time they were hatched, they might weigh from 4 lbs. to 7 lbs. more than by leaving them to grass-feeding alone.

By feeding his Geese until they are four days old, and then literally "sending them to grass," the weight of my father's Geese, at seven to eight months old, has averaged from 17 to 18 lbs. each, after the feathers had been cleanly picked off. He has no doubt that 25 lbs. could be easily attained by a little attention to feeding with grain.

The breeding-boxes mentioned above are made in the fashion something like a dog-kennel, with a roof pitched both ways. They are 30 inches long, by 24 inches wide, and are 24 inches in height. The door is in the end, and is covered by a sliding panel, which moves upwards, when egress or ingress is sought, and may be shut down at pleasure. For the first month, the Geese and Goslings are all shut up in the boxes at night, in order to protect them against rain and vermin.

Having had the breed of Geese in question sent him from Bremen, my father named them after that place; but English writers call this variety the "EMBDEN GEESE." It will be seen from what I have stated above, that my father was the *original importer* of this description, and therefore is entitled to the credit of first introducing it to the United States. It is certain that he had the Bremen Geese in his possession, at least five years prior to the time when Mr. James Sisson, of Rhode Island, imported his; and since 1821, my father has furnished this breed to many parties residing in almost every State in this Union, as also in Canada and Nova Scotia. His charge has universally been five dollars for each, dead or alive.

I may have omitted details including some interest, but am not at present aware of there being any such forgotten.

I am, dear Sir, respectfully yours,

SAMUEL JAQUES, JR.

CHAPTER XXX.

THE WHITE-FRONTED, OR LAUGHING GOOSE.

Mr. Dixon observes that Ornamental Poultry may be divided into three classes, not with reference to their beauty or their natural arrangement, but in respect of their capabilities for domestication. The first class comprises those that are really domestic, (if we derive the word from *domus*, a house,) that unhesitatingly confide themselves to the protection of Man, and may be trusted with their complete liberty, in the certainty that they will prefer the shelter of his roof, at proper times and seasons, to a state of nature. This would include Cocks and Hens, some Pigeons, Turkeys, the Common Domestic, and the China Geese, the Musk Duck, and a few others.

The second class includes those birds which are restrained from resuming their original wild habits, more by the influence of local and personal attachment, than from any love they seem to have for the comforts of domestication; which may be trusted with their entire liberty, or nearly so, but require an eye to be kept on them from time to time, lest they stray away and assume an independent condition. In this class we have the Pea-Fowl, the White-fronted Goose, the Wigeon, the Canada Goose, the Egyptian Goose, and others, including perhaps the Common Duck.

The third class embraces all those birds which, however fa-

miliar they may become, so as even to eat from the hand of their keeper, are yet in their hearts as untameable as a fly; and must, therefore, be kept in complete, though to many eyes invisible restraint, lest they withdraw themselves completely from all human control; and whose taste for domestication does not seem to increase, though many successive generations of them have been bred in captivity. In this class we have the Swan, the Teal, the common Gallinule, the Pheasant, the Nycthemerus, and indeed all the inmates of our cages, aviaries, and menageries, that are not included in the first and second classes.

It is clear that from the second class alone can we hope to obtain any useful and profitable addition to our stock of Poultry. A bird must be found to belong undoubtedly to that, before it can be promoted into the first class. The great difficulty in looking over this unlimited third class, is to discover which species may be advanced into the second. Some are decidedly hopeless cases. The Swan, for instance, and the Pheasant, are no more likely at this moment to become domestic than they were when first discovered amidst the streams and copses of Western Asia. Ages before the discovery of America, while the Turkey remained yet unsuspicious of the settler's rifle, they were as domestic as they now are, and as they are ever likely to be. It is true Temminck speaks of the *Cygne Domestique*, and says that it "lives in domesticity in most countries, very abundant in Holland"—but the term domesticity appears only likely to lead into error, when applied to a creature that hates the confinement of a house, pining and wasting if compelled to remain long in one, the use of whose wings is obliged to be curtailed by amputation, which is kept within bounds on a stream only by mutual jealousy and the difficulty it has in travelling far by land, to say nothing of park-palings and mill-dams.

The White-fronted Goose is an excellent example of our

second class, and well deserves the patronage of those who have even a small piece of grass. Its natural history in a wild state is fully detailed in Mr. Yarrell's valuable "British Birds;" the figure also is very good, though it is a pity that a pair of Geese were not given; but as the works of that gentleman, like every other original book on the subject, have been largely drawn upon, I refrain from borrowing what he has written, particularly as the object of this volume is, not to encroach upon the department of the systematic naturalist, but merely to state what has been observed of birds that have been reclaimed.

The first impression of every one who saw the White-fronted Goose in confinement, would be that it could not be trusted with liberty; and the sight of it, exercising its wings at its first escape, would make its owner despair of recovering it. A pair of young ones that were bred in this country were kindly supplied to me, and though they were evidently not wild, their friskiness and vivacity were such, that it appeared best to shorten the quill-feathers of one wing, and so deprive them of the power of flight till their next moult. Long before that time, however, their confidence and attachment removed all hesitation as to the future. Now, at the most distant sound of my voice, they will come flying, like Pigeons, to alight at my feet; and occasionally, particularly in winter and spring, perform graceful evolutions in the air, that show great power of wing and enjoyment in its exercise. They are perfectly unrestrained, except that the kitchen-garden is forbidden to them. During the severe weather in the winter of 1846–7, while the herbage was buried deep under the snow, we feared they might be tempted to join some of their travelling relations that now and then passed overhead; but we swept a spot bare in the orchard, to amuse them with the idea of grass, threw down a few Savoy cabbages, gave them a little extra corn, and, though they would fly over the house, to get at a spring where the water was still unfrozen, they showed no wish

to seek their fortunes elsewhere, or desert their old companion, a China Goose, who could only proceed on foot to take her draught at the brook.

We have now had them more than three years. In the spring of 1846, the Goose laid some Eggs in an exposed spot, and dropped one or two others here and there, which were added to them, and she then sat as well as Goose could sit. But owing to the persecutions of an ill-natured Canada Gander, whose delight it was to drive her from her nest, and waylay and beat her as she was returning to it from grazing, the Eggs were all addled, and the poor bird, for some time afterwards, showed her dejection and disappointment. Her mate did what he could to protect her from the assaults of her enemy, but his inferior size and strength rendered him powerless. She did not produce a second laying, as is the case with many birds under similar circumstances. In the mean while, the truculent Canadian had been banished; and in the spring of 1847, she selected a better place for her nest. She scratched a hollow in the ground, at the edge of a grass walk, under a white-thorn, about eighteen inches above the surface of the water. The Eggs were removed as laid, and, when she began sitting, restored to her, with a bunch of straw, which she arranged according to her own pleasure, and with which she could cover her Eggs whenever she had occasion to leave them. She began sitting on the 7th of April; on the 7th of May two very pretty Goslings came forth, one of which promised to be white; the next day they were missing, and the rat-catcher explained the cause of their sudden disappearance, by extracting an enormous rat from a hole immediately under the nest. The remaining Eggs proved unfertile; doubtless, from the Gander being permitted to enjoy the society of the above-mentioned China Goose. After the loss of her young, and the abstraction of her worthless Eggs, she still persevered in sitting, with vain expectation, on the empty nest. To prevent

this, we filled the hollow with thorns. She then betook herself to watch the success of her rival, the China Goose, who was still sitting. When the little ones came forth from their shelly prison, she assisted in affording them a mother's care, leading them to the tenderest herbage, brooding them under her wings, and accompanying all their movements with their real parent.

The Eggs are smaller than those of the Common Goose, pure white, and of a very long oval; whether this is a specific, or only an individual peculiarity, I am unable to say. The shell is also thinner than most other Gooses' Eggs. The flesh, both of the wild and of the tame bird excellent. In hard weather, they are frequently to be had at the poulterers' shops, and generally at low prices, in the provinces at least, owing to an unfounded supposition that their flesh would be fishy, as in the sometimes scarcely eatable Brent Goose. But those who are fond of game, will find it, if hung up long enough, a dish for an epicure.

If my own birds are to be taken as specimens, the White-fronted Goose is a pattern of all that is valuable in anserine nature, gentle, affectionate, cheerful, hardy, useful, self-dependent. The Gander is an attentive parent, but not a faithful spouse. Indeed, it is time to contradict what has been published on this latter point, and to caution amateur breeders that Ganders have not the virtues of Scipio. Two treatises, now before me, have the following passage, differing slightly from each other in the wording:

"It has been ascertained, by M. St. Genis, that Geese will pair like Pigeons and Partridges; in the course of his experiments, he remarked, that, if the number of the Ganders exceed that of the Geese by two, and even by three, including the common father, no disturbance nor disputes occur, the pairing taking place without any noise, and no doubt by mutual choice. Besides the common father, he left two of the young

Ganders unprovided with female companions; but the couples which had paired kept constantly together, and the three single Ganders did not, during temporary separations of the males and females, offer to approach the latter."

Acting on this advice, I permitted pairs of four different species of Geese to associate together during the season of 1846. Three Ganders of the four appeared to think that each Goose, except his own, was at liberty to be unfaithful; and that every Gander, except himself, was wrong in committing an infidelity. What with their jealousies before laying-time, and their quarrels after it, with plenty of Eggs, we did not get a single Gosling of any sort throughout the whole summer.

THE WHITE CHINA GOOSE.

Of this variety, Mr. Dixon says:—"Every like is not the same," is a principle that is beginning more and more to influence the reasonings of zoologists, and to affect their conclusions with respect to *Wild* Animals. The important deductions derived from minute differences, in creatures that are almost in juxtaposition together, both systematically and locally, may be seen in the late "Voyage of the Beagle round the World," and in the "Quarterly Review," on "Broderip's Zoological Recreations" (March, 1848). But with Domesticated Animals, a diametrically opposite axiom would seem to hold; they are described and catalogued apparently on the rule that "things may be unlike, and yet the same." The many different kinds of Fowl are supposed to be varieties—by which, I presume, is meant transmutable, or at least transmuted forms—of one, or at most, two or three wild originals; and the history of the Domestic Goose is quietly settled, by considering it as the result of a fusion of three or four different species melted

and mixed into one. Believe it!—those who think that the Bernicle Goose originates from a worm engendered in the sea from rotten wood—not I. Perhaps these essays may cause the real truth to be more closely investigated.

If, within the last half-dozen years, three different sorts (I abstain from using a stricter word) of China Geese, identical with those with which we are acquainted, had been discovered in three adjacent islands of the Indian Archipelago, they would probably have been formed into a separate genus, say Cygnöides, or better, Œderamphus, of which the species might be, first, *albus*, or *galeatissimus*, as typical; the next *rufipes*, and the third, perhaps, *bæticus*, retaining, though in a different sense, one of its trivial names. We should have, as a generic character, "forehead surmounted with a large knob, partly fleshy and partly osseous, increasing with age; beak powerful, highly ridged, adapted to the digging up and division of roots and tubers, to which purpose it is often applied;"—they make short work with a potato—"habits, more terrestial than aquatic; attitudes, in the water graceful and swanlike, on land, constrained and usually erect; voice, harsh and loud; powers of flight very limited and weak," and so on; then would follow the specific distinctions.

Now, we will further suppose that a stock of each of these species was either brought to England, or retained in domestication on the neighbouring Asiatic continent, or both; that the islands became thickly peopled, or repeatedly visited by mariners armed with fowling-pieces, and anxious for fresh meat, and also for sport. The birds cannot escape by flight, nor by running away; they can neither swim so swiftly, nor dive so far as to baffle a boat and a crew of stout rowers; they make no attempt to conceal themselves, as a common Hen will if she be hunted in a shrubbery; their loud cries betray them when unseen; and, consequently, *in their native home*, they undergo the fate of the Dodo: they are exterminated. But their

aptitude for domestication has preserved the *race:* they survive in our poultry-yards, artificial lakes, and Zoological Gardens,* and, after a while, they are styled varieties of, nobody indeed knows what. If they had refused to propogate in captivity, they would have become extinct, like the Uri of the Hercynian forest.†

Is this an impossible or even an unlikely case? Where are we now to find a wild Cereopsis? Where will our great-grandchildren be able to find a Wild Turkey a hundred years hence?

But before finally determining to fix the appellation of species, or variety, to any particular race of animals, it will be necessary first to settle the question of what is meant by the terms Genus, Species, and Variety. They are all understood to denote certain degrees of difference, that are made use of to assist in classification; but the precise lines of demarcation of each are extremely difficult to define. It is generally assumed that individuals of different genera will refuse to breed together; that the mules between different species are sterile; and that varieties are merely accidental and recent examples of a slight alteration in the external character of species, which do not affect their continuance as a race, and, perhaps, disappear altogether after a time. But in opposition to this, hybrids have been produced between the Egyptian Goose and the Penguin Duck; also between the Common Fowl and the

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* "The forethought and industry of Man assists in the preservation and safety of not a few animals, and those things which the earth produces. For there are many, both of beasts and plants, that could not continue in existence, if deprived of the protection of Man."—CICERO, *De Naturâ Deorum* II.

† "But not even when taken very small, can the Uri be reconciled to the presence of man, and become tame."—CÆSAR *de Bello Gallico*, lib. ii. cap. 28.

Guinea Fowl; prolific mules are constantly occurring between all sorts of species of Geese; and it is well and practically known, that though varieties breed freely with each other, nothing is so difficult as to establish a cross that shall be a perfect amalgamation of two distinct varieties. Even individual peculiarities are reproduced in the course of generations.

In truth, species and varieties differ only in degree. If we admit that the latter are merely recent changes of organization, we cannot refuse to allow that the former are so likewise; and thence proceeding backwards, we must apply the same view to genera and classes, till we arrive at last at the theory of the development of all animated beings from Monads, as advocated by Lamarck, and more recently by the author of the "Vestiges of Creation." This is one mode of explaining the diversity of Nature; the other is by supposing that animals were originally created as we now see them, and that any apparent gaps in the chain or network are caused by the extinction of certain races, not by the uprising of new forms into existence, since the creation of Man, at least. Now, we have indisputable proof of the extinction of very many genera and species of innumerable Pre-Adamite animals, (and the reader is particularly requested to observe that we have now existing among us many Pre-Adamite animals*—the Common Badger,

* Remains of the Aurochs (a species which still survives by virtue of strict protective laws, in extensive forests, which form part of the Russian empire,) are found in the superficial deposits of various parts of Europe, some of which carry the antiquity of the Aurochs as far back as the extinct Pachyderms of the newer pliocene deposits.

"That the present European Beaver is not the degenerate descendant of the great Trogontherium, is proved, not only by the differences in the dental structure, pointed out in the preceding section, but likewise by the fact that Beavers, in no respect differing in size or anatomical character from the *Castor Europæus* of the present day, co-existed with the *Trogontherium*. Remains of the Beaver have been

for instance, of older pedigree than all the Howards multiplied a thousand-fold—and I feel convinced many equally ancient birds also;) and we have, besides, records of modern exterminations successively going on, from the Christian era to the present day. No undisputed record, however, is to be found of the sudden emergence into life of a new tribe of creatures. Foreign introductions there have been, but nothing more, that there is any affirmative evidence to prove. I am conscious that I may be contradicted by such examples as the New Leicester Sheep, and the very remarkable Rabbits that are now kept in a state of domestication; but Mr. Bakewell is asserted to have studiously concealed and destroyed every trace of the means by which he established his breed, and the secrets of the Rabbit Fancy are as likely to be made available to the elucidation of natural history as are the Eleusinian Mysteries. But so long as our commercial relations continue as widely extended as they are at present, the sudden and unexplained appearance of any living novelty in England, is by no means of necessity its first appearance on any stage. It may be as

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thus discovered by Mr. Green in the same fossilized condition, and under circumstances indicative of equal antiquity with the extinct Mammoth, in the lacustrine formation at Bacton.

"A fossil skull of a Badger, in the Museum of the Philosophical Institution at York, would seem to carry the antiquity of the *Meles taxus* to a higher point than the Cave epoch, and as far back as any species of the Ursine genus has been traced. Should this specimen prove authentic, the *Meles taxus* is the oldest known species of Mammal now living on the face of the earth.

"My friend, Mr. Bell, has pleaded the cause of the poor persecuted Badger, on the ground of its harmless nature and innocuous habits; the genuine sportsman will, doubtless, receive favourably the additional claim to his forbearance and protection, which the Badger derives from his ancient descent."—Owen's *British Fossil Mammals, passim.*

old as the hills—some of them; older than the English Channel, and have neither made a sudden drop from the clouds in these latter days, nor have been recently compounded, like Frankenstein's monster, from the members of defunct creatures, nor yet electrified into life in a pickle jar, like Mr. Cross's mites. Milton's noble lines are no longer applicable:—

"Meanwhile, the tepid caves, and fens, and shores,
Bursting with kindly rupture, forth disclosed
Their callow young; but feathered soon and fledge,
They summed their pens; and, soaring the air sublime,
With clang despised the ground. * * And straight the earth,
Opening her fertile womb, teemed at a birth
Numerous living creatures, perfect forms
Limbed and full-grown; out of the ground uprose,
As from his lair, the wild beast where he wons
In forest wild, in thicket, brake, or den."

If such views be correct, it will follow that those who are searching for the wild originals of many of our domestic animals, are altogether pursuing a wrong scent. They might just as well search for the wild original of the Mammoth or the Dodo. It is an assumption, unsupported by any proof, to fix upon the wild creature that nearest resembles any given tame one, and to say, "Here is the wild original; the differences which we see have been produced by time and domestication;" or, if there is nothing wild coming within a moderate approach to it, to say, as of the Common Goose, "It is a combination of three or four other species." This is surely not philosophical reasoning; it is a begging of the question, which would not be admitted in the exact sciences. What a daring leap at a conclusion it is, to get from the Asiatic Argali, the American Argali, or the Corsican Mouflon, any or all of them, to the Sheep, at a single vault! Such ratiocination is like the knight's move on the chess-board, hither and thither, but never straight forward. Nor has the wide gulf between Cocks and Hens and

the Jungle Fowl been as yet bridged over by any isthmus to me visible. But what may be said on this latter subject is, for the present, reserved. The principle here sought to be indicated as a guide for future research, is, that existing varieties and species which cannot be *exactly* identified in a wild state, are, in all probability, the remains of extinct races, the fragments of a ruin, not newly-raised "seedlings," modern sports and freaks of Nature. Man, as he extends his dominion over earth and ocean, is generally a Destroyer, occasionally an Enslaver, and so far a Protector, hence sometimes even a Selecter and Improver, but never a Creator.

And now to the White China Geese, about whose lineage the reader, we hope, is by this time interested.

My attention was first directed to these singular birds by Mr. Alfred Whitaker, of Beckington, Somerset. "I wish you could have seen the white variety or species, as it is so far superior in every respect to the brown. The period of incubation of the White China Goose was not more than thirty days, *i. e.* not longer than that of the Common Duck. The White China Goose is of a spotless pure white"—a very few gray feathers have since appeared—"more swan-like than the brown variety, with a bright orange-coloured bill, and a large orange-coloured knob at its base. It is a particularly beautiful bird, either in or out of the water, its neck being long, slender, and gracefully arched when swimming. It breeds three or four times in the season; but I was not successful with them, owing, as I fancied, to my having no water for them, except a rapid running stream. A quiet lake I believe to be more to their taste, and more conducive to the fecundity of the Eggs. I believe my birds are still in the neighbourhood, as I lent them to a farmer to try his luck with them. The Egg is quite small for the size of the bird, being not more than half the size of that of the Common Goose. This bird deserves to rank in the first class of ornamental Poultry, and would be very prolific under favourable

circumstances. You will see both varieties of Brown and White China Geese on the water in St. James's Park. My Geese were from imported parents, and were hatched on board ship from China."

On visiting town, in May, 1848, my efforts to get a sight of any White China Geese were unavailing. There were none left in St. James's Park; there were not any in the Surrey Gardens, choice as that collection is; nor were any visible at the principal places where Poultry is offered for sale. The Zoological Society had parted from their specimens, in consequence of being overstocked with other things. Their head keeper seemed only to consider them in the light of a *variety* of the Cygnöides, but he spoke most decidedly of his experience of the permanence, not only of this variety, but also of that of the dark-legged, and the red-legged sorts of the brown kind, thus indicating three races, which, I repeat, would be considered as species were they now discovered for the first time, on three islands even of the same group.

From this difficulty I was most kindly relieved by receiving a pair of White China Geese, through Mr. Whitaker's means. They are larger than the Brown China Geese, apparently more terrestial in their habits; the knob on the head is not only of greater proportions, but of a different shape. If they were only what is commonly meant by a variety of the dark sort, it is a question whether the bill would not retain its original jetty black, whatever change occurred to the feet and legs, instead of assuming a brilliant orange hue. If the bird were an Albino, the bill would be flesh-coloured, and the eyes would be pink, not blue.

Mr. Knight, of Frome, in whose possession they had been for three years, states that he has been unable to obtain any young from the Eggs of the Goose; but if he supplies her with Eggs of the Common Goose, she invariably hatches and rears the Goslings. Separate trials of each of the pair with the

Common Goose and Gander have been made by him unsuccessfully, although the White China Goose lays four times in the year. Another gentleman (N. B.) who also had a pair of the same lot, from China, says, "I had one good brood from the young pair which I kept, but since that they have bred so badly that I have parted with the females and kept a male bird, and now get very good broods. My friends, to whom I have given young birds from my pair, also complain. The Geese sit remarkably well, never showing themselves out of the nest by day, but whether they may leave the nests too long in the cold of the night, I cannot tell. The time of incubation I consider to be about four weeks and three days. The young birds of the crossed breed in appearance follow the mother, the Common English Goose, but they do remarkably well; and we have now (July 4) killed two really good and sufficiently fat birds, which were hatched only on the 29th of March last."

CHAPTER XXXI.

THE BERNICLE GOOSE.

Several ornithological writers have lamented, with expressions of surprise, that so few of the larger water-birds have been domesticated, and made to afford us a ready supply of food, in return for their board and lodging. But it should be remembered that there are two parties to the proposed arrangement—the master and the slave. If the captive resolutely persists in saying, "You may bestow every care upon me, and lavish every comfort, but I *will not* be the parent of a race of slaves, although I may show a little personal thankfulness to yourself," the next move for us to make is to procure young that are ignorant of the fascinations of a wild life, and to endeavour to subdue, by kindness, *their* stubborn nature. If they remain indomitably independent, and refuse to yield, we are check-mated, and cannot proceed a step further. It is not in *our* power to increase the number of domesticable birds. "The fear of you and the dread of you shall be upon every beast of the earth, and upon every Fowl of the air, upon all that moveth upon the earth," is a promise which will be undoubtedly fulfilled; and thus, as the dominion of Man over the earth daily and hourly extends itself, those creatures that refuse to enter into his train, will be crushed, and perish beneath his advancing footsteps; for, "into your hand are they

delivered. Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things."

The Bernicle Goose is one of those species in which the impulse of reproduction has at length overcome the sullenness of captivity; and it is a curious fact, that instances of their breeding have of late increased in frequency, and we may therefore hope will go on increasing. The young so reared should be pinioned at the wrist, as a precaution. The probability is, that they would stay at home contentedly, unpinioned, till hard weather came, when they would be tempted to leave their usual haunts in search of marshes, unfrozen springs, mud banks left by the tide, and the open sea, where they would be liable to be shot by sporting naturalists—a fate which has done more than any thing else to check the propagation of interesting birds in England—or might be induced to join a flock of wild birds, instead of returning to their former quarters.

Here is a warning example. The pinioning of a brood of Egyptian Geese had been delayed too long; they could fly, and though they came to be fed as usual, would not suffer themselves to be caught. In the winter, during a hard frost, they flew down to the marshes a few miles distant. Their keeper happened to be on the road thither, and seeing them in the air overhead, called to them as usual. They knew his voice, wheeled about, hovered for a moment, and then pursued their course. Shortly afterwards, they were shot by mistake for wild birds, by a person who must have been aware that there was a collection of water-fowl in the neighbourhood; in which, however, there are now only male Egyptian Geese, the mother of the brood having suffered the same fate. Similar unfortunate mistakes are frequent. Does the paragraph in the local newspaper about the "rare bird" shot by so and so, esquire, and the stuffed specimen in the smart glass case, compensate for the slaughter?

Broods of five, six, and seven Bernicle Geese have been

reared; not an inconsiderable increase, if we only kept them to eat: but they have hitherto been chiefly valued as embellishments to our ponds. Their small size renders them suitable even for a very limited pleasure-ground, and they are perhaps the very prettiest Geese that have yet appeared in our menageries. The lively combination of black, white, gray, and lavender, gives them the appearance of a party of ladies robed in those becoming half-mourning dresses, that are worn from etiquette rather than sorrow. The female differs little from the male, being distinguished by voice and deportment more than by plumage. Their short bill, moderate sized webs of their feet, and rounded proportions, indicate an affinity to the Cereopsis. The number of Eggs laid is six or seven; the time of incubation about a month, but it is difficult to name the exact period, from the uncertainty of knowing the precise hour when the process commences. The Geese are steady sitters. Their young had better be crammed with very small pegs for the first week or so, after which they may be entirely confided to their parents. They are lively and active little creatures, running hither and thither, and tugging at the blades of grass. Their ground-colour is of a dirty white. Their legs, feet, eyes, and short stump of a bill, are black. They have a gray spot on the crown of the head, gray patches on the back and wings, and a yellowish tinge about the forepart of the head. The old birds are very gentle in their disposition and habits, and are less noisy than most other Geese. Waterton mentions an instance where the Gander paired with a Canada Goose, a most disproportionately large mate for him to select. The same thing has occurred in Norfolk, but in this case the ludicrous union was altogether unproductive.

The service they may render as weed-eaters should not be forgotten, though their size alone precludes any comparison of them with the Swan in this respect. Sir W. Jardine says that he has observed their feeding-grounds to be extensive

merses or flats partially inundated by the higher tides, a circumstance that may furnish a hint that their breeding may perhaps be promoted by their being furnished with a little sea-weed during winter and early spring. They are also sufficiently removed from the typical Geese to make it possible that a few cockles, limpets, shrimps, or small mussels would not be unwelcome. A single pair would be more likely to breed than if they were congregated in larger numbers: and the price demanded by the London dealers is not extravagant for healthy living specimens.

The young of the Bernicle Goose, like those of the Canada and White-fronted Geese, when left entirely to the guidance of their parents in this country, are apt to be attacked by a sort of erysipelatous inflammation of the head, similar to that from which the Domestic Fowl suffers so much, and which proves equally fatal. The eyelids swell till the bird is blinded; its sufferings must be extreme, even if it recover. The parts affected discharge copiously a watery fluid. Frequent washing with warm water and vinegar is the best remedy, and cramming the bird to keep it alive, must be resorted to. Pills of rue-leaves, or a strong decoction of rue, as a tonic, have been administered with apparent benefit. The disease seems epidemic rather than contagious, though I would not quite deny that it is so; but of all remedies, warmth and dryness, particularly at night, are the most indispensable. Goslings hatched about midsummer in the Arctic regions know not what it is to feel the absence of the sun. A Scandinavian summer's night, even in those latitudes where the sun does sink for an hour beneath the horizon, differs from the day in little else than stillness. There are no frosts succeeding a broiling day, no chilling dews which require hours of sunshine to remove, but all is, for the time, perpetually bright and warm and genial. The difference between such a climate and an English May must be seriously felt by our tender little

pets, whatever care we may take to protect them. This clear, uninterrupted day, two or three months long, of settled, delicious weather, gives a complete explanation of the apparent paradox that birds should retire to the regions, reputed absolutely icy, of the North, for breeding purposes. But those who have made the precincts of the Mediterranean their Elysium on earth, can have no conception of the health, the vigour, the manly tone of mind and body, to be inspired from Hyperborean breezes.

Oh that I had the wings of a Dove! then would I flee away with my little ones to the rich pine-forests, the rushing streams, the deep-cut inlets of the far North, and be at rest, till the snow-drifts of October made us again retreat, with the wild-fowl, to the temperate and hopitable shores of Britain!

THE BRENT GOOSE.

This, and the interesting little Sandwich Island Goose, are the smallest of their tribe yet introduced to our aquatic aviaries; both being inferior in size to some Ducks. The captive Brent Goose has not, that I am aware, bred in any British collection. According to Audubon, it has been known to produce young in captivity, but when, or where, or on what authority, is not stated. To attain this result here, the most likely method is, probably, to make an approach to their natural habits, by supplying them with occasional marine diet. Fragments of shells, that had apparently been swallowed whole, have often been found in their gizzards. It might also be expedient to assemble them in a flock, instead of keeping just a single pair, so that they could consult their own individual tastes in the choice of partners. Their picturesque effect, too, will be greater in this way. Their almost uniform colour of

leaden black, and their compactness of form, make them a striking feature in the scene, though they cannot be compared in beauty with many other water-fowl. They may always be obtained from the London dealers. There is so little difference in the sexes, that it is not easy to distinguish them. Their chief merit, however, rests in their fondness for water-weeds, in which respect they appear to be second only to the Swan. On this account, Ware Goose is one of their trivial names.

"Brent Geese have the cunning, in general, to leave the mud as soon as the tide flows high enough to bear an enemy, and then go off to sea, and feed on the drifting weeds."—*Colonel Hawker.*

"On the north-eastern shores of England, where we have had opportunities of seeing them, they might be considered as entirely maritime, not being known to leave the water-mark, or ever to feed on the pastures or young grain. During ebb-tide, they fed on the banks of *Zostera Marina*, then uncovered; and Mr. Selby mentions the *ulva latissima* as very frequently found in their stomachs; at other times they rest on the sand-banks, which are quite open, and afford no shelter for approach; or they ride, as it were, just off the land, buoyant upon the wave, and occasionally pluck the sea-grass or weeds which are yet borne up within their reach."—*Sir W. Jardine.*

Brent Geese are quiet, gentle, and harmless in captivity. Having eaten only Norfolk-killed specimens, I cannot agree with those who praise them on the table. They were fishy, strong, and oily; but whoever is not fond of such savours, may convert the birds into tolerable meat, by having them skinned, and baked in a pie.

"Immense numbers of Brent Geese," says Mr. St. John, "float with every tide into the bays formed by the bar. As the tide recedes, they land on the grass, and feed in closely-packed flocks. On the land, they are light, active birds, walking quickly, and with a graceful carriage. On any alarm,

before rising, they run together as close as they can; thus affording a good chance to the shooter, who may be concealed near enough, of making his shot tell among their heads and necks. All Geese and Swans have this habit of crowding together when first alarmed.

"A wounded Brent Goose, which I brought home, very soon became tame, and fed fearlessly close to us; indeed, I have frequently observed the same inclination to tameness in this beautiful kind of Goose."

CHAPTER XXXII.

THE TAME DUCK.

My friend, Mr. D. Taggart, of Northumberland, writes concerning the Common Duck and its varieties, as follows:—

"You wish to be posted up in aquatic birds: I know somewhat of these, but probably not so much as yourself. In regard to Ducks, they are much more prolific than they usually have credit for, and even for Eggs, can be made a profitable bird, if well fed and properly managed. Any Common Duck, so treated, if not old, will yield, in a season, one hundred or more, large, rich, and delicious Eggs. When they lay, it is daily or nightly, and if kept from sitting, which is easily done by changing their nests frequently, they will lay, with little interruption, from February or March until August. But the trouble is, a Duck lays only when Eggs are most abundant, while Hens' Eggs may be procured *at all seasons.*

"The young of Ducks seldom die of disease, and if *cats* and *rats* are exterminated, as in all cases they should be, there will be no trouble in raising almost as many Ducks as you have Eggs. One year, from 94 Eggs, I had 91 hatched, and raised 87. Twenty-four of these were Musk, or Muscovy Ducks as they are erroneously termed. In speaking of the prolificness of Ducks, I do not think this variety should be included. They lay comparatively few Eggs. Ducks come early to maturity,

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being nearly full grown and in fine eating order at three months old; far excelling, in this respect, all other Poultry, except Geese."

Of the Tame Duck, Mr Dixon says:—

One leading opinion seems to run throughout them all, that our farm-yard Ducks are nothing more than the tamed descendants of old English Mallards. It is a pity to disturb so plausible and general a belief; but an attempt to approximate to the solution of Audubon's problem, "*when* this species was first domesticated," has raised some doubts upon the subject, which it is of no use to suppress.

One thing, I think, may be demonstrated, *i. e.* that the date of its first appearance in domestication on the European continent is not very remote, however high may be its antiquity in India and China. In pursuing these sort of inquiries, which are daily becoming more interesting and more important in their conclusions, one regrets that untranslated works on natural history or farming (if such there be) in the Oriental languages, are sealed records to almost every one who has the leisure to make use of their contents. It is extremely probable that great light might be thrown on the origin and history of our domesticated animals by a careful inspection of such works. As it is, we are left to obtain our evidence from imperfect and (with the exception of geology) more recent traces.

If the Swan and the Pelican were forbidden to the Israelites, and their carcases to be held in abomination, (see Leviticus xi. 18,) the Duck would probably be included in the list of unclean birds; or, rather, we may without violence suppose that the Hebrew words translated "Swan" and "Pelican," are used generically for all web-footed Fowl. But, as Scott says, "here the critics find abundance of work."

I think it may be shown from negative evidence that the Romans at the time of our Saviour, and subsequently, were not acquainted with the domesticated Duck. I can find no

passage plainly declaring that they were, but many implying that they were not.

Columella, after having given directions for the rearing of Geese, which, with one or two laughable exceptions, are more sensible and practical than are to be found in modern works, proceeds to offer instructions for making the *Nessotrophion*, or Duckery. He speaks of it as a matter of curiosity rather than profit; "for Ducks, Teal, Mallard, Phalerids, and such like birds are fed in confinement." Then it is to be surrounded with a wall fifteen feet high, and roofed with netting, "that the domestic birds may have *no power of flying out*, nor Eagles and Hawks of flying in." His mode of increasing his stock shows that Ducks had not at that time become naturalized and prolific inmates of the Roman Poultry-yards. "When any one is desirous of establishing a Duckery, it is a very old mode to collect the Eggs of the above-mentioned birds, (such as Teal, Mallard, &c.,) and to place them under common Hens. For the young thus hatched and reared, cast off their wild tempers, and undoubtedly breed when confined in menageries. For if it is your plan to place fresh-caught birds, that are accustomed to a free mode of life, in captivity, they will be but slow breeders in a state of bondage."—Lib. viii. cap. 15.

Cicero also speaks of hatching Ducks' Eggs under Hens, (De Naturâ Deorum;) but there is nothing in the passage from which to infer that those Ducks were domesticated, but rather the contrary; as he remarks how soon they abandon their foster-mother and shift for themselves.

Pliny describes the flight of Ducks, as rising immediately from the water into the higher regions of the atmosphere, (lib. x. 54,) exactly as we see a Wild Duck rise now; a performance that would make our duck-keepers uneasy. The very little mention that he makes of Ducks at all, shows that he did not habitually see them in domestication.

From what Ælian says about Ducks, we may conclude that

he also was acquainted with them in the wild state only. His positive evidence would not be worth much, if the translator of Rabelais was justified in characterizing the "Varia Historia" as the production of "Ælian, that long-bow man, who lies as fast as a dog can trot;" but his negative testimony may prove something. In Book v. 33, he describes how the Ducklings, unable to fly, and to escape by land, avoid the attacks of Eagles by diving. Tame Ducks would hardly be in much danger from Eagles, whatever mishaps wild ones might be liable to; although, from the frequent mention of these plunderers in classic authors, there certainly is reason to believe that they were much more abundant while the great part of Europe remained uncivilized, than they are now. And in Book vii. 7, after having given the signs of the weather denoted by *wild* birds, in which he includes Ducks and Divers, he proceeds to mention those afforded by Cocks and Hens and other domestic birds.

Supposing it, however, to be proved that the Tame Duck is a comparative novelty in the West, it by no means follows that it is so on the Asiatic Continent and Islands, nor, as a corollary, that it is a tamed descendant of *our* Mallard. If the skeletons of one and the other were placed side by side, it would require, not a skilful comparative anatomist, but only an observant sportsman, or even an ordinary cook, to point out which was which.* Nor has sufficient weight been attached to the circumstance of one bird being polygamous, and the other monogamous. When we come to speak of the Domestic Goose, it will be seen how little such a difference is likely to be the result of domestication. Let us not forget, too, that the domestication of wild races is an art that demands quiet, peace, patience, and superabundance, not merely for its successful

* "You need not be at a loss to know a *wild* Duck. The *claws* in the *wild* species are *black*."—Col. Hawker.

issue, but for its being exercised at all, and was little likely to be much practised by any European nation, in the interval between the fall of the Roman Empire and the present day, with a creature that required a course of generations to reclaim it. I am inclined, therefore, to consider our race of farm-yard Ducks as an importation, through whatever channel, from the East, and to point out the discovery of the passage of the Cape of Good Hope (1493) as the approximate date. The early voyagers speak of finding them in the East Indies exactly similar to ours; and the transmission of a few pairs would be a much easier task than to subdue the shyness and wildness of the Mallard, and *induce an alteration in its bony structure.* The admirable reasoning of Professor Owen respecting our present domestic Oxen, is, to my mind, perfectly applicable to the Tame Duck.

"My esteemed friend, Professor Bell, who has written the 'History of Existing British Quadrupeds,' is disposed to believe with Cuvier and most other naturalists, that our domestic cattle are the degenerate descendants of the great Urus. But it seems to me more probable that the herds of the newly-conquered regions would be derived from the already domesticated cattle of the Roman colonists, of those 'boves nostri,' for example, by comparison with which Cæsar endeavoured to convey to his countrymen an idea of the stupendous and formidable *Uri* of the Hercynian forests.

"The taming of such a species would be a much more difficult and less certain mode of supplying the exigencies of the agriculturist, than the importation of the breeds of oxen already domesticated and in use by the founders of the new colonies. And, that the latter was the chief, if not sole source of the herds of England, when its soil began to be cultivated under the Roman sway, is strongly indicated by the analogy of modern colonies. The domestic cattle, for example, of the Anglo-Americans, have not been derived from tamed

descendants of the original wild cattle of North America: there, on the contrary, the Bison is fast disappearing before the advance of the agricultural settlers, just as the Aurochs, and its contemporary, the Urus, have given way before a similar progress in Europe. With regard to the great Urus, I believe that this progress has caused its utter extirpation, and that our knowledge of it is now limited to deductions from its fossil or semi-fossil remains."—OWEN'S *British Fossil Mammals*, p. 500.

In like manner, the Mallard, though not gone, is fast diminishing as a *permanent* inhabitant of England: the tame Duck, so much larger and heavier, if its descendant, can hardly be called a degenerate one. The Mallard is very widely diffused over the continental part both of the Old and the New World, and therefore its supposed adaption to domestic life is as likely to have occurred in Asia as in Europe. Its dislike to salt water has made it less cosmopolitan among the islands. Dampier, in his Voyages, repeatedly mentions that in the East Indies "the tame Fowls are Ducks and Dunghill Fowls, both in great plenty;" he does not describe the Ducks, except as "the same with ours." He was doubtless correct in believing them to be the same; although we know that the old travellers, and many of the modern emigrants, are not very precise in their zoology, and indeed might sometimes be excusably puzzled. For instance, when Captain Wallis, soon after he discovered Otaheite, saw animals lying on the shore with their fore-feet growing behind their heads, rising every now and then, and running a little way in an erect posture, he might naturally be moved with curiosity to inspect them more closely: he afterwards found that they were dogs, with their fore-legs tied behind them, brought down by the natives as a peace-offering and a festival dish.

I know of no instance in which any one has finally succeeded in founding a permanent tame farm-yard race of Ducks, by breeding from the Mallard, though the attempts have been

numberless, and a few parties have been on the very brink of success. Crosses between the Wild and Tame breeds have answered better; but the progeny have retained their full share of independent temper and movements.

One of the most valid arguments in favour of the derivation of the Tame Duck from the Mallard, is to be found in the readiness with which the former returns to a wild or a half-wild state. In Norfolk there is a breed called "Marsh Ducks," more from their habits and place of birth than from any peculiarity of race. They are mostly of plumage similar to the Mallard, though an ornithologist would immediately distinguish them; their size and the fineness of their bones are intermediate between the wild bird and the common farm-yard Duck. They are turned out on the marshes to forage for themselves: indeed, it would be next to impossible to keep them at home; and of the number which are annually lost to their masters, it would seem likely, at first sight, that quite as many assume an independent condition, as are killed by birds, beasts, or men of prey; but I doubt the fact, and they do not appear to be ever found actually and entirely wild. They are frequently sent to market towards the close of summer, without being shut up at all to fatten, and afford a cheap and relishing addition to the table.

Similar instances on a smaller scale are frequent. "A farmer in our neighbourhood (Wiltshire) has a Duck, of the common black and white sort, that every year takes it into her head to abscond to the river, where she lays her Eggs. She does not, however, I believe, pair with any Wild Drake, but remains the whole summer in a wild state with her young ones, and then quietly returns to the yard in autumn. When I have been taking a walk sometimes about four in the morning, I have frequently seen her on the Down, about a hundred yards from the water. On being alarmed, they would all run and dart into the water with great rapidity: and this plan the

old lady has acted on for several years, escaping unscathed by guns and dogs."—*H. H.*

There are several varieties of Tame Ducks, but their merits are more diverse in an ornamental than in a profitable point of view, and will be estimated very much according to the taste of individual fanciers. Those who merely want a good supply for the table, cannot do better than just to adopt the sort most common in their own vicinity. No country place should be without some, especially in low situations. A Drake and two or three Ducks will cost little to maintain, and will do incalculable and unknown service by the destruction of slugs, snails, worms, and the larvæ of gnats, and other annoying insects. The only trouble they will give, is, that if there be much extent of water or shrubbery about their home, they will lay and sit abroad, unless the poultry-maid or the boy gets them up every night, which should be done. Otherwise, they will drop their Eggs carelessly here and there, or incubate in places where their Eggs will be sucked by carrion-crows, and half their progeny destroyed by rats. In the neighbourhood of large pieces of water, or wide-spreading marshes, this will be either impossible, or attended with more waste of time than the Ducks are worth. In which case, and indeed in all cases with Ducks, I believe the slave-owner's maxim to be correct, that it is cheaper to buy than to breed. The smaller they are bought in, the more good service they will perform in ridding a place of minute crawling and creeping nuisances; and the most profitable management of them is to let them gorge all they can swallow, as fast as they can digest it, and to make them fit for table, and for the supply of materials for feather-beds, at the earliest possible moment. The quickest return will be the most remunerative.

As to cooking them, there is only one traditional old English mode. We would gladly transfer, as an illustration to these pages, Leech's admirable "Romance of Roast Ducks," from

'Punch," June 24, 1848, although he ought to have made the accompanying green peas more distinctly visible.

"*Lingo.*—Ah, Cowslip, if you was a goddess! Jove loved an eagle; Mars, a lion; Phœbus, a cock; Venus, a pigeon; Minerva loved an owl.

"*Cowslip.*—I should not have thought of your cock-lions, your owls, and *your pigeons;* if I was a goddess, give me a *Roast Duck.*"

The Agreeable Surprise, Act 1.

In the Principality, they have a delicate way of serving them boiled, with onion sauce. On attempting to reproduce the dish after a tour in North Wales, the result was utter failure, till the secret was discovered that the Ducks must be salted a couple of days before being boiled. Still more heterodox fashions have been practised in former days.

"The *Pottage of Ducks with Turnips*, is made of Ducks larded, and half fried in Lard, or which have took three or four Turns on the Spit; then they are put in a Pot. The Turnips, after they have been cut in Pieces, and floured, are also fried in Lard, till they are very brown; then they are put in the same Pot with the Ducks, and left to boil slowly in Water, till the Ducks are done. Before the Pottage is carried to Table, it may be seasoned with a few drops of Verjuice."

"To make a '*Ragout of Ducks*,' they must be larded, fried, very well seasoned with Salt, Pepper, Spices, young Onions, and Parsley, and put in a Pot to stew, with a little of our best Broth."

"*Ducks* are roasted with four Roses of Lardons, one on each Wing, and one on each Leg: Some put another on the Stomach."

"To make a *Duck Pye*, the Ducks must be larded, well seasoned, and the Pye baked for the Space of three Hours."—*Dennis de Coetlogon's Universal History*, p. 827 *et seq.*

The reader will take his choice; we only wish him a good

appetite and pleasant company; the living birds belong more properly to our department.

Of White Ducks, the best is the Aylesbury, with its unspotted snowy plumage and yellow legs and feet. It is large and excellent for the table, but not larger or better than several others. They are assiduous mothers and nurses, especially after the experience of two or three seasons. A much smaller race of White Ducks is imported from Holland; their chief merit, indicated by the title of Call Duck, consists in their incessant loquacity.* They are useful only to the proprietors of extensive or secluded waters, as enticers of passing wild birds to alight and join their society. But in Norfolk, where the management of Decoys is as well understood as anywhere, the trained Decoy Ducks are selected to resemble the Mallard, male and female, as nearly as possible. Both systems are found to answer; the wild-coloured traitors arouse no suspicion, while the conspicuous Dutchmen excite fatal attention and curiosity. When the newly-arrived immigrants, although bent on a pleasure excursion from the north, are listless, or suspicious of their company, and will not enter the Decoy, they may often be made to do so by the sudden display of a red handkerchief, or the rapid appearance and disappearance

* "The chief point to be attended to in England, is to get, if possible, some young wild Ducks bred up and pinioned. Or, by way of a make-shift, to select tame birds which are the *most clamorous*, even if their colour should not be like the wild ones. But in France you have seldom any trouble to do this, as the Ducks used in that country are partly of the wild breed; and three French Ducks, like three Frenchmen, will make about as much noise as a dozen English. The Italians, in order to make their call-birds noisy, for a 'roccalo,' burn out their eyes with a hot needle, a practice at which I am sure my English readers would shudder; though the translation of what they say in Italy is, that 'these are the happiest birds in the world, always singing.'"—*Colonel Hawker's Instructions*, p. 367.

of a Spaniel. The White Call Duck has a yellow-orange bill, that of the Aylesbury should be flesh-coloured.

There is also the White Hook-billed Duck, with a bill monstrously curved downwards, not *upwards*, as some writers have it, but Roman-nosed Ducks in short, with features like Cruikshank's Jews, of a most grotesque and ludicrous appearance. It may be superfluous to remind the reader, that White Ducks make but a sorry figure in towns or dirty suburbs, or anywhere that the means of washing themselves are scanty. But Hook-billed Ducks are nothing new. Albin, in 1738, published coloured figures of both sexes, which look much as if they had a right to claim the rank of a species. The lines of small white specks on the head, as he describes them, are remarkable. The bill has some resemblance in its curvature to that of the Flamingo. He says, "These Ducks are better layers than any of the other, either wild or tame."

The cottagers living on the northern coast of Norfolk, have one or two varieties that are very pretty, and are not usual,—one of a slate-gray or bluish dun, another of a sandy yellow; there are some also with top-knots* which rival the Hook-billed Duck in oddity.

Of mottled and pied sorts there exist a great variety; black and white, brown and white, lightly speckled, and many other mixtures. The Rouen Duck of Poultry-books can hardly be separated from this miscellaneous rabble, and ought to be permitted to return to its original obscurity in the multitude. It is wrong to lead people to pay high prices for them as stock; and we are quite at a loss to discover in them any unusual merit or other describable peculiarity. They appear to be

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* "Some of the tufted tame Ducks, near Salisbury, are very handsome, having crests as compact and spherical as any Polish Fowl; but whether this is, or was, any distinct variety, I will not undertake to say."—*H. H.*

identical with the commonest Ducks which we have everywhere. The "Rouen," likewise "Rhone" Duck, is also written "Rohan." I believe neither term to be correct, in point of fact: that is, not exclusively: *i. e.* Rouen Ducks are to be found wherever there are Tame Ducks. The words are similar in sound, but the two first are taken from localities, the last from the name of a distinguished family, one member of which, the Cardinal de Rohan, was strangely implicated in the diamond-necklace affair that caused such distress to Marie Antoinette. But we might just as well call them "London" or "Thames" Ducks, or "Mr. Smith's" Ducks. It would puzzle most people to point out in what they differ from the every-day brown, or brown and white, farm-yard Duck. We should be told they were *finer*, a *better sort*, &c. An inquiry of some of, not all* the Dealers, for the authority on which the name was given, would probably be met by silence, or by anger at the public being told that birds, for which *they* charge six, eight, or ten shillings, may be had of any country higgler for 1*s.* 6*d.* I am even uncharitable enough to suspect that incorrect names are purposely given to unusual varieties, by a few poultry-merchants, in order to conceal the source from whence they were originally derived. My notion that the title Rouen and its aliases is only a trade name, intended to elevate the common sort into a choice and more marketable variety, is confirmed by the omission of such a designation by Aldrovandi, and later by Buffon; both writers who swept *every thing* into their net. Penguin Ducks are nearly as strange as

* I beg to acknowledge the gentlemanly and ready manner in which Mr. John Baily, of Mount Street, Grosvenor Square, has expressed his willingness to impart information on a subject on which he is so well conversant. He is able and trustworthy to execute orders for choice specimens of Poultry, and I should certainly apply to him, did I want any select Fowls to be procured.

the Hook-billed. Their peculiarity consists in walking uprightly, in feeble imitation of a Penguin. But it is not strikingly apparent when they are in an ordinary frame of mind. A sudden fright makes them raise their heads, as it will many other birds.

A variety not usually met with, but which deserves to be better known, is that advertised by the Messrs. Baker as the Labrador Duck; the Zoological Society have had it under the name of Buenos Ayres Duck, and received it from that place; in the south of England it is known as the Black East Indian Duck. It would be difficult to fix upon three more dissimilar and widely-separated spots on the face of the globe. We may at once discard the claim of Labrador, however rich in wild specimens, to the honour of sending any new tame variety of bird. Believing that our Tame Ducks are all importations from the East, I should give the preference to the Indian title. Nothing is more probable than that the Zoological Society had their birds from the East, *viâ* Buenos Ayres. Whether the stock had been introduced there a month, or twenty years previously, does not alter the main fact; while ships direct from India would be very likely to land a few pairs at the first Channel port they touched at.

By some country dealers they are styled Beaver Ducks, in allusion, perhaps, to a black beaver hat. These persons esteem them highly, and usually send them to London alive, where, if good specimens, they are eventually disposed of to amateurs at the rate of eight or ten shillings each.

But from whatever quarter obtained, they are handsome creatures. A little girl, at her first sight of them, could not help exclaiming—"Oh! what beautiful golden-green Ducks!" The feet, legs, and entire plumage, should be black; a few white feathers will occasionally appear; but I had some birds that were immaculate, and such should be the model of the breeder. The bill also is black, with a slight under-tinge of

green. Not only the neck and back, but the larger feathers of the tail and wings are gilt with metallic green; the female also exhibits slight traces of the same decoration. On a sunshiny day of spring, the effect of these glittering Black Ducks sporting on the blue water is very pleasing, especially if in company with a party of the Decoy breed in strictly Mallard plumage.

A peculiarity of these Black East Indian Ducks is, that they occasionally—that is, at the commencement of the season—lay black Eggs; the colour of those subsequently laid, gradually fades to that of the common kinds. This strange appearance is not caused by any internal stain penetrating the whole thickness of the shell, but by an oily pigment, which may be scraped off with the nail. They lay, perhaps, a little later than other ducks, but are not more difficult to rear. Their voice is said to differ slightly—a fact I have not observed: but they are far superior to others in having a high wild-duck flavour, and, if well kept, are in just repute as being excellent food when killed immediately from the pond, without any fatting. My attention was first called to them by a friend and neighbour, to whom I am indebted, not only for the information, but for handsome specimens.

The time of incubation of the Tame Duck is thirty days.*

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* Does the Mallard differ in this respect from the Tame Duck? I think not. But, according to Audubon, "at length, in about *three weeks*, the young (of the former) begin to cheep in the shell." Did we not know his usual great accuracy, we should suspect some error, and also be startled at the subjoined statement. "The squatters of the Mississippi raise a considerable number of Mallards, which they catch when quite young, and which, after the first year, are as tame as they can wish. *These birds raise broods which are superior even to those of the old ones, for a year or two, after which they become similar to the ordinary Ducks of the poultry-yard.* The hybrids produced between the Mallard and the Muscovy Duck are of great size, and af-

The best mode of rearing them depends very much upon the situation in which they are hatched.* For the first month, the confinement of their mother under a coop is better than too much liberty. All kinds of sopped food, barley meal, and water mixed thin, worms, &c., suit them. No people are more successful than cottagers, who keep them, for the first period of their existence, in pens two or three yards square, cramming them night and morning with long dried pellets of flour and water, or egg and flour, till they are judged old enough to be turned out with their mother to forage on the common and the village pond. Persons with extensive occupations, over which the Ducks would stray and be lost, will find it better answer their purpose to buy in their main supply of Ducks half-grown, than to rear them, besides having the satisfaction of putting a few shillings into the pockets of their poorer neighbours. A few choice old favourites may still be retained for their services as grub-destroyers, for the beauty of their plumage, and for the pleasure of seeing them swim their minuets in the pond, bowing politely to each other—the bows to be returned—before they take their afternoon's doze on the grass, with their sleepy eyelids winking *from below*, and their bills stuck under the feathers of their back, by way of a respirator. The healthy heartiness of their appetite is amusing rather than disgusting. A cunning old Duck, to whom I tossed a trap-killed mouse, tried hard to get it down in the rough state, but finding that impossible, she toddled off with it to the pond, where, after a

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ford excellent eating. *Some of these half-breeds now and then wander off, become quite wild, and have by some persons been considered as forming a distinct species.* They also breed, when tame, with the Black Duck (*Anas Fusca*) and the Gadwal the latter connection giving rise to a very handsome hybrid, retaining the yellow feet and barred plumage of the one, and the green head of the other parent."

* According to Pallas, in the Crimea, the tame Duck is reared with difficulty.

due soaking, the monstrous mouthful easily slipped down. They are cheerful, harmless, good-natured, cleanly creatures. As Audubon says, "They wash themselves, and arrange their dress, before commencing their meal; and in this, other travellers (in America particularly) would do well to imitate them."

In rearing Ducklings, it is usual, in the first place, to dip their feet in water as soon as hatched, and then to clip the down on their tails close with a pair of scissors, to prevent their becoming drabbled and water-logged; and before their introduction to the pond, it is thought advisable, by many good housewives, to let them have a private swim or two in a small pan of water, to try their strength and practise their webbed feet before venturing upon a larger space.

A few original notes on the Mallard will not be out of place here, though the facts they record show that the Teal and such-like water cage-birds have a truer claim upon them, if disposition and habits are to guide our arrangement.

"I have seen enough of the Mallard of England, and his untrustworthy progeny, to make me *doubt* of his being the origin of our Farm Duck. That the Mallard is becoming less frequent every year in our vicinity is true, but we have attributed it chiefly to the exertions of unbidden would-be sportsmen on our river. We still, however, have them in certain places in tolerable abundance. They are fond of frequenting the furze and heath on our downs in spring, and sometimes breed there, but oftener in willow-beds and the thick grass in our meadows, whence I have often had Eggs brought me, and set under Hens. These generally hatch well, if the Hen's breast be dipped in water a few times during incubation. There is a decided gain as to docility in Ducks hatched in this way, over those caught on the river, even if only a single day old. Young Wild Ducks are certainly some of the most cunning and slippery little creatures extant, and the best

way is to commence handling them as soon as hatched, by which means, and by confining them for some time within an enclosed place, they soon become more reasonable. In every case, I have not been able to trust them until the feathers began to appear; but in several seasons that I have reared them, they have been so distrustful, that it was not safe to allow them liberty, and as soon as ever their wings were grown, they were off. On one occasion, I had two of these birds, about a quarter grown, that grew exceedingly slowly: they were very wild, and one night made their escape to the river, where they remained until the evening of the following day, when they were retaken. If I had not previously marked them, nobody should ever have persuaded me that they were the same. I could not have conceived that less than twenty-four hours' immersion in the river could have caused the growth it did: but so it was. Another time, I succeeded in making a couple so gentle and sociable, that when half-grown, they would follow me, and eat out of my hand. Soaked bread they are very fond of when young; afterwards corn, &c.: the seed-tufts of the sedge are a great treat, when soaked in their water. The two birds above mentioned were both ladies, and, while I was trying to procure a drake, (no easy matter,) they vanished, about the end of November, being probably whipped up when out in an adjoining road. One year I lost a fine brood by turning them into an exquisite little pond (as we thought) that had been lined with lime, whereby they became immovably stuck at the sides, and perished. Another time, in our great kindness, we procured some river weeds, water-crowfoot, &c., and placed them in their pond, forgetting it was not a running water. The poor little things became apparently tipsy, rolling and turning about in all directions and speedily coming to an end. One set of docile creatures I succeeded in rearing, turned out to be four Drakes; and so, for one reason or another, none have remained over the winter—the more to

be regretted, as I wished to verify Waterton's account of the wonderful changes in dress the Drake undergoes in June and July, the oddest part of which is, that immediately on the completion of the bird's sober change of raiment, he begins to shed those feathers again, to make room for his gala dress.

"One cause of the diminution of numbers in the Mallard here, is a Fox-preserver about half a dozen miles off. These vermin seem to be fonder of Ducks than any thing else, and the Ducks are preserved for them! How they catch them has always been rather a mystery to me, but it must be by lying perdu in the sedge for them. This, however, would seem to be but a poor chance.

"Wild Ducks, rendered tame and corn-fed, are certainly superior to any, having the fine wild flavour, without its fishiness. Beech mast are a good occasional diet for Wild Ducks, if thrown into their piece of water.

"This season (1849) I have been particularly successful in rearing the Mallard in a state of domestication. Three different sets of Eggs, from five to nine in number, were brought in by our mowers, and the greater part hatched under Hens. The Ducklings were shy at coming out, but as soon as their first feathers began to appear, they would eat from my hand, and follow me eagerly about the garden, if they saw me with a spade; seeming to understand that they were about to enjoy their grand treat of worms. Small frogs also did not come amiss, which they gulped down, regardless of the cries of the poor creatures. I noticed that, after they attained their quill-feathers, though not previously, they began to eat grass with avidity. Odd scraps at first, and soaked corn and dry rice afterwards, formed their chief food; and this diet, I think, made them mild and agreeable ultimately for the table. Out of many I reared, there were only two females—one of which had a singular habit of attacking me with great spirit and much quacking, if I attempted the cap-

ture of either of her gentlemen friends. In domestic Fowls this trait is often observed, but I was not prepared to find an instance of it in an unreclaimed bird a great deal too young to possess any maternal impulse.

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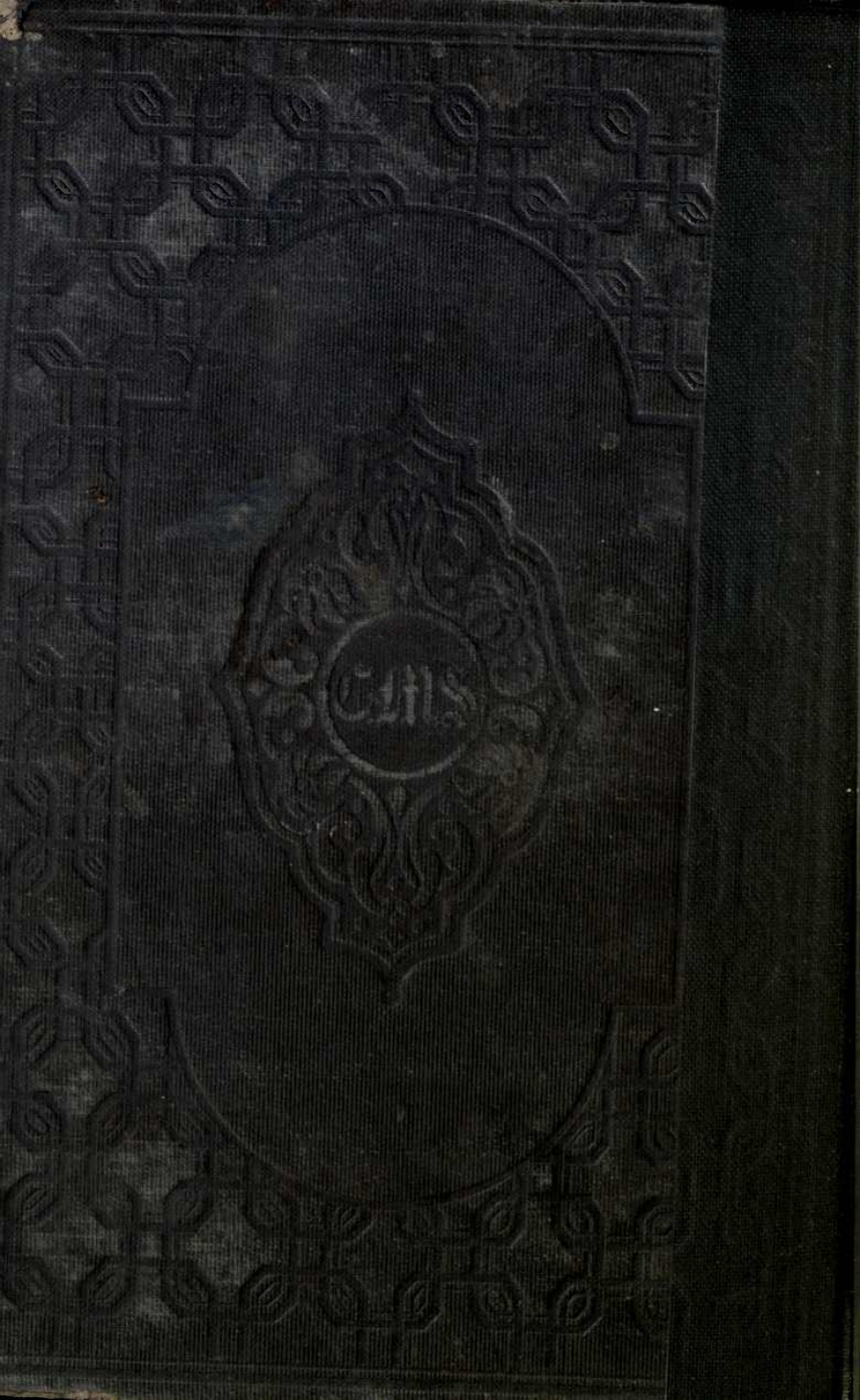
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